MARINE RECORD

ESTABLISHED 1878.

VOL. XXIII, No. 38. CLEVELAND---SEPTEMBER 20, 1900---CHICAGO. $2.00 Per Year. 5c. Single Copy

LAKE CARRIERS' ASSOCIATION.

To consider and take action upon all general questions relating to the navigation and carrying business of the Great Lakes, maintain necessary shipping offices and in general to protect the common interests of Lake Carriers, and improve the character of the service rendered to the public.

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OCEAN WRECK STATISTICS FOR 1899.

The statistical summary of vessels totally lost, condemned, etc., now published by Lloyd's Register, shows that, during 1899, the gross reduction in the effective mercantile marine of the world amounted to 996 vessels of 783,508 tons, excluding all vessels of less than 100 tons. Of this total, 330 vessels of 469,621 tons were steamers, and 666 of 313,887 tons were sailing vessels. As regards steamers, the present return exceeds the average of the preceding eight years by 57 vessels and 124,730 tons; as regards sailing vessels it is below the average by 169 vessels and 68,579 tons. Similarly, the figures relating to steam tonnage owned in the United Kingdom are above the average, while those relating to sailing vessels are below. The excess in the case of steamers follows upon the great increase during recent years in the amount of steam tonnage afloat, and is partly attributable also to the amount of tonnage broken up, condemned, etc. Apart from cases which come within this latter category, the United Kingdom steam tonnage lost during 1899 exceeds the average of the preceding eight years by about 32,000 tons, while the tonnage owned has increased since 1891 by nearly three million tons.

The summary exhibits interesting data as to the relative frequency of the different kinds of casualty, etc., which conclude the existence of vessels. Stranding and kindred casualties which are comprised under the term "wrecked," are much the most prolific cause of disaster. To such casualties are attributed 39 per cent. of the losses of steamers and 44 per cent. of the losses of sailing vessels. The next most frequent termination of a vessel's career is by condemnation, dismantling, etc.; about 21 per cent. of the vessels removed from the merchant fleets of the world are accounted for in this manner. Of the remaining causes of loss, collison is the most general for steamers (12 per cent.); while, for sailing vessels, the categories of missing (11 per cent.) and abandoned (10 per cent.) rank next in order of frequency. Cases of abandoned, foundered, and missing vessels may perhaps be regarded as frequently more or less similar in the circumstances of loss. If these be taken collectively, they comprehend 22 per cent. of the losses of steamers and 26 per cent. of the losses of sailing vessels.

The return has been compiled by Lloyd's Register in such a manner as to enable a comparison to be made between the percentages of loss suffered by each of the principal merchant navies in the world. Great as the absolute annual loss of vessels belonging to the United Kingdom appears to be, it is seen to form a very moderate percentage of the mercantile marine of the country, and to compare favorably with the losses sustained by other leading maritime countries. The merchant navies which exceed a total of 1,000,000 tons are those of the United Kingdom, the British Colonies, the United States of America, France, Germany, and Norway. Of these countries, the United Kingdom shows the smallest percentage of loss, viz.: 2.59 per cent. of the vessels owned; Germany follows with 2.8 per cent.; and Norway is the highest with 5.93 per cent. As regards steamers, while the percentage for the United Kingdom stands at 2.24, the average of the percentages of loss for the other five countries is 2.68. For sailing vessels, the other five countries show an average percentage of 5.88 as compared with 3.75 per cent. for the United Kingdom.

The percentages given at the end of the preceding paragraph suggest that steamers have a much greater immunity from disaster than have sailing vessels. This inference is sustained if the losses suffered by the remaining merchant fleets of Europe be also taken into account. While the losses of steamers amount only to 2.24 per cent. of the number and 2.38 per cent. of the tonnage owned, the losses of sailing vessels reach 5.38 per cent. of the number and 4.66 per cent. of the tonnage.

VESSELS OWNED.

Flag.	Steam Vessels Owned, according to Lloyd's Register Book, 1899-1900.		
	No.	Tons	
		Net.	Gross.
British { United Kingdom	6,920	6,819,148	11,086,241
British { Colonies	917	380,626	633,006
United States	*605	512,572	759,750
Austro-Hungarian	203	213,215	344,685
Danish	360	236,705	403,339
Dutch	263	265,063	389,253
French	639	516,016	997,235
German	1,133	1,216,521	1,946,732
Italian	282	280,611	445,565
Norwegian	779	451,449	737,412
Russian	456	245,751	392,985
Spanish	438	345,661	537,840
Swedish	642	238,292	380,572

*Excluding lake vessels.

BRITISH SHIPS MUST BELONG WHOLLY TO BRITISH CITIZENS.

A correspondent writes the Journal of Commerce, of New York, as follows: "A married woman (a native of Great Britain, as is also her husband,) buys shares in a vessel under the British flag. Her husband subsequently becomes an American citizen, which naturalization, of course, made his wife a citizen of the United States. Can the wife, in order to retain her ownership of the vessel, renounce allegiance to the United States and again become an English subject, or is she enforced to be of the same citizenship as her husband, and consequently be compelled to dispose of her interest in the vessel? Under the above circumstances what is the legal status of the vessel?" The reply was as follows: "It is expressly provided by law in Great Britain that "a married woman shall be deemed to be a subject of the State of which her husband is for the time being a subject," and no provision is made for granting naturalization to a married woman. It is provided by the British Shipping Act of 1894 that a ship shall not be deemed to be a British ship unless owned wholly by those who are citizens of Great Britain by birth or naturalization. If a ship assumes the national character when it is owned in whole or in part by any person not qualified to own a British ship, the ship is subject to forfeiture."

CAPT. A. B. DAVIS.

The ship owners and ship masters of the Great Lakes have great regard for Capt. A. B. Davis of the United States revenue cutter service, who is in charge of the St. Mary's river patrol. He has met with them at their annual conventions and has always shown a willingness to do what is best for the navigation interests in all matters coming under his jurisdiction. Capt. Davis has spent practically his entire life aboard ship. He was born in Philadelphia, and his first voyage at sea as a sailor was in 1849 on the ship Emily, owned and commanded by his father. He made two voyages to the West Indies in the Emily, after which he joined the clipper ship Montauk, bound to China. The Montauk touched at Hobart Town, Van Diemen's Land and Sidney, Australia. At the latter place Capt. Davis left the ship, remaining in Sidney for a while. He returned to the United States in the American whaler Levi Starbuck of Nantucket. The passage home was long and tedious. Off Valparaiso, while in a boat trying to capture a whale, he was capsized and remained on the bottom of the boat nearly three hours before being rescued. At the age of twenty-one he commanded a bark called the Gov. Von Oxholm, a very fine vessel built in Philadelphia. He remained in the merchant service, commanding other vessels, until the civil war broke out, when on Aug. 31, 1861, he was commissioned first lieutenant in the United States revenue cutter service, and was promoted to captain in the same service in July, 1864. Capt. Davis has commanded quite a number of cutters and has been stationed at almost every seaport on the Atlantic coast and in the Gulf of Mexico. He has also served on the Pacific coast. In 1861 he was ordered to Milwaukee to command the revenue cutter Andrew Johnson; in 1885 he was detached and sent to New York to take the revenue cutter Bear to San Francisco, and return to Milwaukee in 1888, again assuming command of the Johnson, Capt. Davis was placed in charge of the Gresham when she was placed in commission a few years ago. This vessel was ordered to the Atlantic coast to participate in the Spanish war. He took her as far as Cleveland, when he was detached, as he was considerd too old to take part in the war. Then he was given command of the Fessenden, stationed at Detroit. Capt. Davis' supervision of navigation in the St. Mary's river extends back to 1896, when the regulations of the Treasury Department were first promulgated. His vessel at present is the revenue cutter Morrill.

ONE of the largest cargoes of iron ore ever brought to Philadelphia was entered at the custom house last Saturday by the agents of the Danish steamship Canadia, from Wabana, the shipment consisting of over 6,500 tons of the Newfoundland product. The cargo is consigned to furnaces along the line of the Reading & Lehigh Valley Railroads, and will be discharged at the Port Richmond piers. The ore comes from the Northern part of Newfoundland, known as Belle Island. Several vessels are engaged in bringing the ore, which is from newly discovered mines, to Philadelphia. It will require 325 cars to carry away the cargo, and there will be ten trains.

THE British admiralty is about to arrange for a series of trials of artificial fuel, the two varieties being Welsh bituminous coal residum bound with pitch or tar, and the other a mixture of anthracite coal and highly bituminous matters with tar made up into blocks of 22 pounds each. Both produce intense volumes of black smoke. It is said, however, that a process has been worked out at Swansea for making smokeless anthracite briquettes, and that plant is about to be put down for turning out half a million tons a year.

KINGSTON, ONT.

Special Correspondence to The Marine Record.

The Belmont gold mine, near Marmora, has almost entirely closed down, and little or no work will be done there during the next two or three weeks.

The Cataraqui Mining and Developing Co. has been incorporated, with a share capital of $400,000, and Hon. Peter Maclarin, Hon. Donald McMillan and others as directors. They will start building here this fall.

Mr. Laidlaw, manager of the Rapid Transit Co., desires to thank the people of Kingston for their patronage of the steamer Unique during the past season. He claims that notwithstanding low rates, the season has been a profitable one.

The Government boat is busy with her survey at the foot of Wolfe Island. The Minister of Public Works has promised that a dredge will be sent to deepen the channel at the foot of the island, also to complete the work on Kingston harbor.

Professor Miller is doing geological work in connection with the Sudbury nickel mines. Recently Dr. Maund, a celebrated German chemist, purchased a property at Sudbury, known as the Stobie and Tough properties. The Hamilton Refining Co. also lately purchased properties in the same district.

The metal sheet workers, No. 117, met on Saturday evening for the election of officers, with this result: Pres., W. Patterson; vice-pres. W. Bryson; sec. W. Hamilton; rec. sec. C. Harris; treas., W. Cannon; sergt.-at-arms, E. J. Ada. W. Patterson, Peter Moncrief, and J. Elmer were elected to represent the union on the Trades and Labor Council. The officers were installed by R. Mooney, president of the Trades and Labor Council.

Thursday morning, about seven o'clock, a small, two-masted schooner, the Robert McDonald, which was anchored below the M. T. Co's elevator, dragged her anchor during the gale and began to drift toward the Pittsburg shore. About 8:30 the wind changed from southwest to northwesterly, and it was not long after that time before the vessel grounded near the cottages below the Royal Military College. The vessel rests on a good level bottom in about 2½ feet of water. She is light, having come from Charlotte about midnight last evening to load cedar posts for Charlotte at the spile dock. The schooner Robert McDonald is owned by Messrs. A. Matthews and Robert McDonald, Charlotte, and is sailed by Capt. Frank Matthews, Lake Port, near Colborne. She has not been damaged by her mishap. Capt. Thomas Donnelly went over to the vessel this morning to look at her. He decided that she was all right where she was, and as soon as the wind went down he would send the steamer Donnelly to release her.

Capt. Dix, of the schooner S. H. Dunn, was in the big blow Wednesday morning, and tells of having had a very exciting experience. He left Kingston Monday afternoon at three o'clock, and lay all Tuesday in a calm—the calm that precedes a storm. At five o'clock a breeze sprung up and his stout vessel was headed for Port Dalhousie. The wind increased in velocity and the sea "rolled mountains high." At times the waves towered twenty feet above the craft, but she kept dry. The velocity of the gale carried away the vessel's two jibs, her jibboom and mainsail. Being light she tossed about at a lively rate, but kept her head well up. Capt. Dix succeeded in getting within six miles of Port Dalhousie; in fact he was able to see the tug lights. Then he was forced to turn about and head down the lake, arriving here last night. He came down the lake under bare poles having made a mainsail out of two spare jibs. The Dunn carries a crew of seven, and that they did not go to Davy Jones' locker is because of the fact that their skipper is an experienced mariner.

IT is probable that the Light-House Board will ask lake shipbuilders for proposals to build the Sumac, the light-house tender designed for service in the ninth light-house district, which includes the whole of Lake Michigan. When bids were solicited for this vessel some time ago none were received. The cost of material had so advanced that bidders did not think it worth while. The original appropriation for this vessel was $85,000, which was later increased to $100,000. One-half of the $100,000 was made immediately available in the sundry civil bill. The Sumac is to be a twin screw steamer of the following dimensions: Length over all, 170 feet; length between perpendiculars, 160 feet; depth of hold, 14 feet; displacement, 700 tons; maximum speed, 15 miles. She is to be equipped with jet condensing engines of 750 indicated horse hower, with cylinders of 18 and 34 in. diameter and 28 in. stroke. Steam to be supplied by two Scotch type boilers.

CHICAGO.

Special Correspondence to The Marine Record.

Grain freights are in easy shape with a fair amount of business at two cents on wheat to Lake Erie. Milwaukee to Baffalo barley, 1¾c. Toledo, coal—Emerald, Midland, 50c; Port Huron, 30c; Sandusky to Marine City, 30c.

A rumor from Oconto that the steamer J. E. Rumbell had foundered near Long Tail Point, Green Bay, with all hands is without foundation. The Rumbell has been in Green Bay weatherbound. And that is all there to the story.

The grain trade is running along evenly at 2c. for wheat, with a demand sufficient to take all the tonnage offered. Milwaukee is also taking some boats, and unless there is a decided change in general conditions, grain rates will continue some time at their present figure.

The steamer City of Chicago, of the Graham & Morton line, went into winter quarters on Wednesday. The number of passengers carried by the line this season exceeds that of any previous year in the history of the company, and the volume of freight handled was also heavy.

Grain cargo insurance rates were advanced on September 1. The following table shows the old figures and also the new ones, which go into effect the first of the month. To Port Huron, from 25 to 35 cents; to Buffalo, 30 to 40 cents; to Kingston, 45 to 55 cents; to Montreal, 60 to 70 cents.

As an outcome of a collision in the ice off Milwaukee last winter between the Indiana and the F. & P. M. No. 1, the latter steamer has been libeled by the Goodrich line for $800. The steamer Charles McVea was libeled for a supply bill to Joy, Morton & Co. Both boats were at once bonded out.

The Treasury Department statistics indicate that the lake commerce of 1900 will be the greatest on record, the total number of arrivals at the 37 principal ports on the lakes to August being for the season 15,941. Chicago led in the amount of shipping. During the season to August 1 the grain receipts at lake ports were 66,090,115 bushels.

Capt. James Moore, of Chicago, who recently purchased the burned wreck of the steamer Otego at Green Bay, finds that he has a tough proposition on his hands. Two unsuccessful attempts at floating the wreck have thus far been made. In the second attempt three steam pumps were used, but only lowered the water a few inches. The hull appears to be fairly riddled with holes, which a diver is now engaged in patching.

The new Quebec line of the Canada Atlantic road will be opened early next month with the shipment of 100,000 bushels of corn by Counselman & Co., from Chicago to Europe via Quebec. The grain will be loaded at South Chicago and trans-shipped at Depot Harbor, the lake end of the Canada Atlantic. Thence it will be taken by rail to Quebec, where it will go into the ocean steamer. A big trade for the line is predicted for next season.

The officials of the Chicago-Buffalo rail lines, after a meeting in New York, September 6, issued an "iron-bound instruction, effective immediately, to the representatives of these lines and their connections in Chicago, that they must maintain freight rates or men would be found to take their places who would be able to do so." The rates that led to this order had run down to the lowest ever quoted, equivalent to 5 cents net, Chicago to Philadelphia, or 8 cents with elevator charges included.

The steamer S. S. Curry was pulled back from the draw of the Wisconsin Central railroad bridge early on Tuesday aud trains were able once more to enter the Grand Central passenger station. The steamer was then taken back to Sixteenth street in order to permit other vessels to pass while the draw at the railroad bridge is being fixed to permit the passage of the Curry. All navigation of the south branch has been blocked since the Curry became fast in the bridge, and the release has been a good thing for all interests.

Timothy Sammons, superintendent of the Rock Island el evators, died at his home to-day of Bright's disease, after an illness of six months. For thirty-one years he has been connected with the Rock Island elevators, and in his capacity as superintendent has made as wide a circle of acquaintances with vesselmen as any man on the river. He was regarded as one of the most efficient elevator men in the country, and vesselmen tell many tales of his efforts to do favors for them. He is survived by a widow, three sons, and six daughters.

Rear-Admiral Louis Kempff, U. S. N., who will be fifty-nine years old October 11, was appointed from Illinois to the Naval Academy in 1858, but in May of 1861 this class was ordered into active service on account of the requirements of the war then just beginning, and in this way young Kempff saw no inconsiderable active service before achieving his majority. He was number nine in a class of thirty-two, and the only members of the class remaining in the service are Rear-Admirals Sumner, Higginson and Day, the latter having retired at his own request last March. Admiral Kempff has one son who is also in the navy, Ensign Clarence S. Kempff, U. S. N., now on the Fish Commission steamer Albatross, and who entered the Naval Academy May 19, 1893.

THE black spar buoy marking the southwest point of the shoal ground that extends nearly across Sturgeon Bay from the east shore, leaving a narrow channel between it and Hill's point on the west shore, has gone adrift.

DETROIT.

Special Correspondence to the Marine Record.

Quick work was done by the Detroit Ship Building Co. on the broken "jenny gear" of the Frank E. Kirby and Monday morning the steamer resumed her route. Saturday and Sunday the City of the Straits took her place but the gale Sunday prevented her landing at Catawba Island.

The Treasury Department has been unable to secure bids for the construction of a lighthouse tender for the Great Lakes, within the limit of the appropriation of $85,000, secured by Senator McMillan last winter. As a consequence, Congress will be asked to increase the limit of the cost to $125,000, and the present plans and specifications will be adhered to.

David Stockton, employed on the schooner Sage at Port Huron, had a narrow escape from being crushed to death on Monday. He was working in the hold of the vessel at the hoisting of the coal, when the bucket with a full load was unexpectedly lowered back into the vessel and Stockton was pinned underneath a ton and a half of coal. Fortunately a hollow had been scooped out where the man fell and he escaped with only a bad squeezing.

Norman B. Conger, of Detroit, inspector and marine agent of the Weather Bureau, replying to a recent criticism of the service in relation to last Tuesday's gale, says it was one of the most timely and accurate predictions he ever saw; that there was a discrepancy between the predictions and the actuality as to the point where the storm center entered Lake Michigan, but not enough to affect results; that full warning of the night gale on Lake Erie had been sent to all ports on that lake and elsewhere, and that a gale is not severest right in the storm center, but off to the sides of it and over its route just after it has passed.

The foundered schooner Fontana is now entirely under water with nothing to show her location. Both masts have been carried away by the gale. She is now one of the most dangerous wrecks that could obstruct the entrance to the St. Clair river. A small vessel with a light will be anchored over the wreck. The Fontana has been sinking steadily since she went down after her collision with the Santiago, and there is now full three feet of water over her cabin. Every precaution is needed by vessels entering the river to prevent running on the wreck. Capt. George P. McKay, chairman of the Lake Carriers' committee on aids to navigation, received a dispatch from Capt. J. W. Westcott, of Detroit, stating that he had arranged with Kendall, of Port Huron, to keep lights on the wreck the of Fontana.

Vesselmen are still talking about the great gale of last week and discussing the seagoing qualities of the various boats. The Detroit Journal says: Manager Dustin of Ashley & Dustin, points with pride to the performance of the steamer Frank E. Kirby, which battled with the terrible sea two hours while rescuing the crew of the schooner Magnet and came in but a few hours late. General Manager Carter of the D. & C. referred with a smile to the performance of the City of Cleveland and City of Detroit, both of which made a trip across Lake Erie in the great storm, arriving in port, the former twenty-five minutes late at Cleveland and the latter coming to Detroit one hour and three-quarters late, after having taken the longest passage to escape a little of the wind. "The storm proved the advantage of a side-wheeler over a propeller in shallow water and a bad sea," said an officer of the D. & C. this morning. "The mishap to the City of Erie was caused by the breaking of the stearing gear, which left the steamer entirely at the mercy of the sea and of course resulted in considerable damage and excitement among the passengers."

BUFFALO.

Special Correspondence to the Marine Record.

The North Land, of the Northern Steamship line, arrived here on Wednesday, and will lay up for the winter.

The tug Alpha of the Maytham fleet at Ashtabula which was libeled about a month ago, has been released by the United Stated marshal. It is understood that the bonds to the amount of $10,200 were furnished, which is twice the amount of libel. It is said that the Maythams will likely begin a suit against the Great Lakes Towing Company for damages for the enforced idleness of the Alpha.

Thomas Kingsford died at Oswego, N. Y., September 7, after a brief illness, at the age of 73 years. He was at the head of Oswego's big corn-starch industry and was regarded the leading business man and manufacturer of that city. Thomas Kingsford was born in Headcomb, England. He had been prominent in the starch business at Oswego for many years. He leaves a wife, one daughter and one son, Thomas P. Kingsford, president of the National Starch Co.

The members of the committee which is is arranging the details for the Merchants' Exchange convention up the lakes on the North Land, on Sept. 18, meet for further consideration of the project. The committee has been divided into sub-committees as follows: Music committee, Mathias Rohr and C. F. Heintz; special entertainment features, Harry J. Koch and Jesse C. Bowen. Secretary Curt M. Treat, of the Merchants' Exchange convention and industry bureau, will look after the general entertainment of the excursionists. He will engage some entertainer of national reputation to accompany the pleasure seekers. Mayor De Witt, of Binghamton, has written to Mr. Treat, announcing his intention of participating in the trip, and it is expected many from Syracuse, Rochester and elsewhere in Central and Western New York will follow suit.

The recent elevator fires at Buffalo have started up the business of drying grain on a large scale, every drier in the city being worked to its utmost capacity to dry out 630,664 bushels of wet grain of all sorts, while some of the malt houses, also, being otherwise idle at present, are using their kiln for drying wet grain. As might have been expected, complaints of "bad smells," which, we are officially informed by the health department, hang over the city in vast "masses," have been numerous and loud, so that the health department took the matter up for special investigation. A report was published by the department on August 30, which among other things said: "The action of the stench cannot but be injurious to health. It has caused innumerable complaints of sickness, diarrhœa, nausea, loss of appetite among the healthy, while upon the sick, the young, the feeble and the aged it has a pronounced depressing influence, acting injuriously upon their various maladies and lowering their vitality. This stench is due to the decomposition of grain induced by heat and moisture, factors which, under the circumstances, are present in a high degree at the elevators. It is further intensified and hastened by the general unsanitary conditions at the ruins, where there are pools of stagnant water, masses of charred wood and decomposed grain intermingled with this mass of debris. We have therefore the honor of recommending the enactment of the amendment of the ordinance referred to, so that the future will not present the possibility of offense we have been undergoing in the past and present." Meantime one of the members of the department has hit upon a scheme for rendering the drying process innocuous, which is being tried in various malt houses. It consists of burning sulphur in the kiln fires and sending the fumes of the sulphur through the kilns, where they will mix with the odors of the drying grain and destroy them. It is not certain, however, that this can be done with much success in wet weather, it is remarked, because it is thought the fumes will mix with the moisture and form sulphuric acid!

DULUTH—SUPERIOR.

Special Correspondence to The Marine Record.

The nominal figure on wheat is 2 cents but chartering is so light that there is hardly anything doing.

The Duluth Market Record says: The local inspectors have decided to stop the practice that has prevailed here for two or three years, of offering to No Grade wheat the designation indicating what kind of wheat it would be if it was not No Grade. That is, there would be no more No Grade 1 Northern or No Grade No. 2 Northern. If the wheat is No Grade, it will be called by that name, and will have to sell on its merits, according to whether it is good, poor or indifferent. There promises to be a lot of it this fall.

The recent storms on Lake Superior did great damage to the government work at the mouth of the ship canal on the contract of Porter Bros. The two end cribs on the eastern breakwater and the end crib adjoining, which was placed at right angles with the balance of the work and parallel with the shore, were loosened by the waves and turned completely over, dumping the rock filling and allowing the timber work to be driven ashore. The last crib on the shore end of the eastern arm of the breakwater has moved bodily with its filling of rock for eighteen feet.

While the movement of anthracite coal is not up to that of a year ago, the shipment of bituminous coal is far ahead of any season of which a record has been kept. This year can hardly be compared wtth 1899, because last season the lake trade did not supply the demand of the northwest, with the result that when navigation opened in the spring all of the coal was off the docks and that commodity was going into that section by rail. Enough coal has already been shipped to insure that no repetition of last season's shortage will be seen, but the prospects are for even a larger consumption than last year, which means that there is a good-sized lump of business yet to be moved. Some of the shippers report that to date they have moved as much coal as they had on the upper lake docks at the close of the season of navigation a year ago. Even with this they are not shutting off the shipment, but rather are sending as much coal as the condition of the docks will permit.

A marine engine has just been completed at the machine shop of the shipbuilding company which was constructed entirely by local labor. It is a large, triple-expansion engine, designed for one of the boats which is being built in Buffalo for Crosswaithe and intended for Atlantic service. The engine, which stands 20 feet high in the shop where it was put together, will be put on the cars for shipment to Buffalo. The order for this work was a rush order and was placed here so that it might be finished as early as possible, the other yards being full. Since March 15 the men have been working at the shop up to 10:20 at night every night except Saturday and Sunday. The engine is of the vertical, surface-condensing type of marine engines, constructed from the latest designs and on the most improved principles, being similar to the engines placed in the United States steamers Gresham and Algonquin. The horse-power will be 1,800, diameters of cylinders 20, 30, 55, with a piston stroke of 40 inches. The castings for the frame work were made at the steel plant and the forgings were done at the ship yards. This engine is numbered on the plate, which also bears the inscription "Built by the American Ship Building Co., West Superior, Wis., 1900." As soon as this is out of the way, work which has already commenced will be continued rapidly on the two Babcock-Wilcox boilers of the tubular type, which are for two steamers building in the yards at Lorain.

CLEVELAND.

Special Correspondence to The Marine Record.

Capt. J. G. Keith, the well known vessel owner of Chicago, was in the city Wednesday.

The steamer Alexander Nimick was docked at Lorain this week for repairs to her rudder and shoe.

The Welland canal steamer building at Lorain for A. B. Wolvin and others will be launched on Saturday, Sept. 29.

The Albert Y. Gowen was docked at Lorain this week for repairs to her stern bearings and to have her bows calked.

The schooner Commodore, the tug William D., the Kitty Downs and the steamer P. J. Ralph went into dry dock on Wednesday.

When coming out of the river bed Monday the steamer Chauncey Hurlbut crashed into the dock at the foot of Front street. The dock was damaged a little, but the boat was not injured.

While being towed up the river Wednesday the schooner Connelly Bros., loaded with ore, took a sheer and crashed into the lower Centralway bridge. Her jibboom was carried away.

Ore cargoes are offered a little more freely and a few vessels of the right size could be placed at 70 cents from the head of Lake Superior, but brokers would have trouble placing large carriers at that figure.

The steamer Capt. Thomas Wilson, official number 127,469, 4,719 gross and 3,959 net tons, built at Port Huron, Mich., and hailing from Cleveland, has been registered this week at Washington, D. C., by the Bureau of Navigation, Treasury Department.

Another wild ore charter was made this week at 65 cents from the head of the lakes, and others are coming. The movement of ore, while it is not heavy by any means, is better than it has been, a few tramp boats being placed now and then. The market, however is dull. The grain situation remains unchanged. Boats are in fair demand and the rate from Chicago holds at 2 cents.

Ore cargoes are offered more freely and vessels could be placed at Ashland at 70 cents. Most of the mines on the Mesaba range that were flooded early last week are in shape to ship again and there are not as many vessels on the market for wild cargoes. There is a fair demand for lumber carriers, and with the small vessels of that class about going into winter quarters, there is a better feeling in the freight market.

The bodies of Capt. Senghas, chief engineer Willous, first mate Carlson and second mate Tyler, which were picked up at Erie, arrived here. Chief engineer Willous and first mate Carlson will be buried here, and the bodies of Capt. Senghas and second mate Tyler were sent to Marine City for burial. Two members of the crew of the steamer John B. Lyon are still missing. They are watchman Mike Nestor, of Kipton, and cook G. Loskiel, of St. Paul. A dispatch from Erie said: Two more bodies of Lyon's wreck victims were found to-day, Michael Smith, at this port, and an unknown at Avonia, twelve miles west of the city. The body found yesterday was identified as that of Louis Carlson, of Cleveland.

FLOTSAM, JETSAM AND LAGAN.

Capt. Walter Wood has entered complaint against the first and second engineers of the tug Castle alleging that they refused to sail with him because he was not a union man. This is denied, it is understood, by the two engineers. The matter now rests with the local inspectors who will investigate it.

Lighthouse-keeper Knutson is searching for a number of men and boys who have visited the Pintsch light crib on Racine reef, turned the light out twice and committed other depredations. Never since the light was placed has it gone out except in one instance. There is great danger for vessels when it is not burning and the penalty for meddling with it is heavy.

Wm. Hetherington died recently in Toronto. He was widely known in marine circles in Canada, having been a lake captain since a young man. He sailed the blockade runner West Wind, which was at one time the fastest boat on the upper lakes. In his time he had commanded many of the large boats on the upper lakes. He leaves one son, Wm. T. Hetherington of the Great Northern Railway at Montreal, and one daughter. John Hetherington of the Grand Trunk Railway in Toronto is a brother of deceased.

The Nightingale, a famous Yankee clipper, sailed 336 knots in 24 hours, while two of Donald McKay's fine fleet put even this grand performance into the shade. They were boats of 245 feet keel with a beam of 44 feet, 6 inches, and one of them, aptly termed Flying Cloud, covered 427 knots in the day, while the Sovereign of the Seas is credited with averaging no less than 18 knots during a day's run! But English owners were not long in taking a lesson from the American's book, for in 1856 the Lord of the Isles, built by Messrs. Scott & Co., of Greenock, sailed a race with two of the Yankee cracks from China to London, and came in a good winner. But the days of wooden ships were over. Now they are a mere memory of the past, and with them has closed a romantic chapter in the development of our mercantile fleet.

LETTERS AT DETROIT MARINE POST OFFICE.

September 19, 1900.

To get any of these letters, addressees or their authorized agents will apply at the general delivery window or write to the postmaster at Detroit, calling for "advertised" matter, giving the date of this list and paying one cent.

Advertised matter is previously held one week awaiting delivery. It is held two weeks before it goes to the Dead Letter Office at Washington, D. C.

Banker, Geo., 2
Berents, Oscar, Barge Young
Brennan Thos.
Basney, Elmer, Sch. Troy
Cunningham, W. J.
Elderkin, Walter
Farman, Mrs. L. D.
Flack, I. M.
Gilchrist, Mrs. Fannie
Gerlach, Harry, Str. Pawnee
Graham, Henry, Str. J. J. Hill
Hogan, Capt., Str. A. A. Parker
Hineline, Lester
Harrison, Willian
Hewitt, Mrs. Anna, Str. Mingoe
Jefferson, Fowler, 2
Kitchen, Geo., Barge Young
Krause, Chas. F., Str. Elfinmere
LeRoy, H. M., Str. Watt
Lockwood, John, 2
Linsworth D.
Mitchell, Henry L., Str. Massachussetts
Morrison, W. A., Str. Pawnee
Messmore, Clayton, Str. Australia
Montgomery, Bert, Str. Mohegan
Muchien, D.
Maloney, Myles
Murray, Donald
McFarlane, Michael, Str. Onoko
McAleer, Miss Mary
McGarry, John, Str. Watt
Ogden, Ben, Str. Checotah
Pullen, Thos., Str. LaSalle
Poole, Maud
Parker, E., 2, Str. Tampico
Poole, Albert, Str. Bangor
Pelkey, Fred, Barge Young
Rochelieu, Mrs. Frank, bge. Watt
Rexford, Ray
Smith, George, Str. C. C. Barnes
Smith, Lewis H.
Smith, Albert H., 2, Str. Baldwin
Strohmeir, Geo., Str. Hurlbut
Theobald, Wm. E., Str. Wm. A. Young
Waterman, Cameron D., Yacht Uarda
Wagstaff, C. B.
Wenner, W. P.
Wesley, Forrest A.
Wade, W. Y.
Waneless Alex
White, H. M.

F. B. DICKERSON, P. M.

NOTICE TO MARINERS.

LIGHT-HOUSE ESTABLISHMENT,
OFFICE OF THE LIGHT-HOUSE INSPECTOR, 9TH DISTRICT,
CHICAGO, ILL., September 19, 1900.

HILLS POINT (INSIDE) BUOY.

Notice is hereby given that the Hills Point (inside) black spar buoy No. 5, reported adrift September 15th, 1900, was replaced September 18th, 1900.

By order of the Light-House Board.

F. M. SYMONDS, Commander, U. S. N.
Inspector 9th District.

LIGHT-HOUSE ESTABLISHMENT,
OFFICE OF THE LIGHT-HOUSE INSPECTOR, NINTH DIST.,
Chicago, Ill., September, 15, 1900.

HILLS POINT (INSIDE) BUOY.—Notice is hereby given that the black spar buoy, marking the S. W. point of the shoal ground that extends nearly across Sturgeon Bay from the E. shore, leaving a narrow channel between it and Hills Point on the W. shore, has gone adrift.

The buoy will be replaced as early as practicable.

By order of the Light-House Board.

F. M. SYMONDS, Commander, U. S. N.,
Inspector Ninth Light-House District.

THE board of construction of the Navy has practically decided upon the details of the three protected cruisers authorized during the last session of Congress. According to the recommendations of the majority of the Board these vessels will be in many essentials similar to what has hitherto been classed under the heading of armored cruisers. They are to have a trial displacement of about 9,500 and are to carry in the neighborhood of 700 tons of armor. The sides of the cruisers, if the recommendations of the majority of the Board are followed, will be protected by four inch armor. There is an agreement in the Board as to the batteries of the three vessels. They will carry 16-inch rapid fire guns, 14 mounted in broadside and two in center. Rear Admiral Hichborn, Chief Naval Constructor, who made the estimates to Congress for the construction of these protected cruisers, has made a minority report in which he protests against the action of the majority of making the ships in reality armored cruisers and not protected cruisers as the law provides. The last naval appropriation bill authorized the construction of "three protected cruisers of about 8,000 tons trial displacement carrying the most powerful ordnance for vessels of their class, and to have the highest speed compatible with good cruising qualities and great radius of action, and to cost, exclusive of armament, not exceeding $2,800,000 each." It is stated that if the recommendations of the majority of the board are followed the vessels will eventually cost over $3,000,000, and it is also claimed that according to the wording of the law here quoted it will be illegal to construct the cruisers with side armor. It was originally intended to have these vessels built after the Olympia type, but the board decided otherwise. What action the Secretary will take it is yet impossible to say, although it seems evident that the recommendations of the majority of the board cannot be adopted.

MASTERS' WAGES.

Many lake captains have been expecting the insurance companies to compel the vessel owners to pay their shipmasters more than the average wage of $1,500 a year. Mr. George L. McCurdy, the well-known underwriter, is quoted on the subject as follows:

"If the masters think we will interfere in the matter, they make a mistake. It is simply a question between the vessel owners and the captains. We are not interested in the outcome.

"The captains have hoped we would interfere on the grounds that a man competent to care for property valued at $500,000 could not be hired for $1,500 a year. Now, it is none of our business what the masters are paid. Of course, we would like to see the men get as much as possible, but that is another question. We do not touch on masters' salaries in our agreement. I think we never will. What we require is a competent man as master of a boat. We get him, for the lake captain is as skillful as any navigator in the world.

"We do not even care to express ourselves on what lake masters are worth. This arises simply from our efforts to mind our own business. If our contracts governing insurance did not take in the competency of the captains, then it would be a different matter. As it stands now, the masters make a mistake if they think the underwriters will interfere in the salary question."

In connection with the underwriters' possible interest in the matter one of the oldest captains in the service said: "I have sailed the lakes ever since I was a boy. For 20 years I commanded a vessel running between Lake Superior and Lake Erie. In that time I got many's the hard knock, and I learned that the best way to fight is to do it alone. Outside aid is not forthcoming when you most expect it. The insurance men will not give us any assistance in the salary discussion. Really, they are outside the matter entirely. Many of the masters say that our deliverance will come from that direction, but I don't believe it. What we want to do is to get our heads together and consider. Then when we have formulated a policy, to carry it out.

"We will not be arbitrary. All the lake captain wants is what is coming to him. We are getting very tired of seeing our crews getting advances, while we go on working at the old scale. Why, there is one vessel I know of and the first engineer on her gets $132 per month, while the master draws only $125. Is that right? The engineer obeys the captain, and the latter accepts the responsibility. I have frequently advocated a good strong union among lake captains. We have a shipmasters' association, but it is a benevolent order. We want to deal fairly with the vesselmen, and above all things we want them to deal fairly with us. Is that too much to ask?"

In this connection we quote from a recent article in the Chicago Journal as follows:

While the engineers, mates, firemen and deckhands on lake vessels are being paid more wages than a year ago, it is said that the masters are working at the old rates. These facts have been known to all marine men since the season opened, but until the present week no steps have been taken to find the reason for the so-called neglect of the captains' interests.

Now the matter seems likely to develop into one of grave import. The masters have discussed the matter, and they have decided that the organized efforts of the engineers, mates, firemen and deckhands have resulted in their getting a liberal advance in wages. In a word, the masters say that their subordinates are getting more money on account of the strength of their unions. These facts have awakened the captains, and with it has come a realization of the smallness of their salaries compared with the responsibility of their positions.

A retired lake captain, who is a member of the Shipmasters' Association, and at present residing in Chicago, has given the following statement to the Journal on the masters' position:

"Imagine the president of a bank, capitalized for, say, $500,000, working for from $1,000 to $1,600 a year. That's what the avarage lake captain draws, and he has more responsibility than the bank president. It may seem strange to the layman to compare a lake captain to a bank president, but the comparison is not so far-fetched after all.

"When I say that the master of a big lake vessel has more responsibility resting an his shoulders, I mean it. Look at your bank president. He has his money under lock and key. True, he invests it, and takes risk that way. But, what about the master? He is given a boat worth $300,000; he loads that boat with a cargo worth $200,000; he is expected to bring that boat through the most tortuous channels in the world in safety and do it in the greatest possible haste. Ten or twelve trips a year bring up the total value of the property in his care to over $5,000,000, and for his work he is paid on an average $1,500 a year. Undoubtedly the lake captain is the most underpaid man in the country today. Just imagine what the bank president would demand for such responsible labor, even if the dangers of storms and rocks were entirely withdrawn from the reckoning?

"Then turn from the freight boats and consider the passenger trade. Think of a master taking out 1,000, 2,000 or 3,000 passengers on a vessel, and only receiving in the neighborhood of the above sums? Isn't the comparison between the responsibility and the reward ridiculous? Five dollars a day is paid by some of the big Chicago companies. And the returns for a single trip of some of the big boats will run from $2,000 to $4,000 for fares alone.

"In any other line of business a man that would offer to accept such responsibility for such a small sum annually would be thought incompetent. But it is different with the lake masters. They have never struck work like the deck hands and the other men on the boats. And there is not a class of men in existence who could as easily coerce employers into paying a reasonable scale.

"Think of it, we would have the government at our back the moment we walked out. There would be only one side to the fight. If the shipowners went to fill our positions with substitutes, Uncle Sam would immediately say: 'Where are your papers?' The vessel owners cannot make captains in a day; they cannot make them in a year. If the masters went on strike for what is their dues they would tie up lake traffic. Business would be paralyzed. In a few weeks you would see the vessel owners offering anywhere from $5,000 to $10,000 for a competent master. For rates would soar, and nothing hurts a capitalist more than to see money go to loss which he might prevent by satisfying a few men's demands.

"We hold the key to the situation. In the Shipmasters' Association meetings I have more than once advised the masters to take a vacation when the season opened. They have not spent a summer with their families in years. Suppose they were simply to tell the vesselmen that they were going to spend the summer at a lake resort. What would be the result? The vesselmen could not import men; they could not give licenses. Ever and always the government would be there to say: 'This you must do in regard to captains on your boats.' We would win in a walk. The vacation would be short. For the vesselmen would be falling over each other in an effort to get men to command their boats.

"The other employes on lake boats have had their wages increased. We are given at the end of the season a present by the owners, perhaps $200 or $300, but this is optional. It is not practiced by all the lines. Organization has given the engineers and other classes of labor more money. The captains in a union can do the same. We have been too easy. Here we are with property amounting to millions at our individual power. With a word we could send the boat out of her narrow channel on the rocks, and who would be the wiser? No one. But we don't do that. We go on working day by day, 24 hours in 24, controlling men, with millions of dollars' worth of property in our care. And what do we get for it? Hardly enough to pay the oil bill for the engines of one of the big steamers we control."

IN Le Yacht, M. de Duranti writes a spirited and able defence of the policy of those French naval experts who advocate the building of battleships of large displacement and possessing great offensive and defensive power, as opposed to the idea of those who, like the ex-minister of marine, M. Lockroy, believe that the only hope of success of France in a naval war with England lies in adding to the French navy a number of armored cruisers of a displacement of from 10,000 to 12,000 tons. M. de Duranti quotes, with approval, the statement recently made by a French deputy, M. Aimond, that there does not exist, built or building, any foreign warship capable of resisting the .305 mm. projectile of the French gun. According to M. Aimond, who has made an exhaustive study of the new 15,000-ton battleship type for the French navy, the new type is invulnerable, its radius of action and speed are insufficient and its artillery power is clearly superior to that possessed by the battleships of any foreign power.

THE FRENCH NAVY.

Analyzing the French naval programme the Engineer says: M. Chautemps told his colleagues that the commercial war was a mirage, since there will be no such war. If the occupation of the commerce destroyers is gone, the French have found other reasons for abandoning their policy of relying entirely upon swift cruisers. The strongest of these is that, once blocked up in a port, they never could get out again. Moreover, France is the only country which has persisted in giving attention to this type of vessel, and as all other countries are pinning their faith in the battleships, the French naval authorities are beginning to see that they are perhaps wrong in not doing likewise. The failures of the new cruisers to come up to expectations are also largely responsible for this change of opinion. The Guichen is regarded as a disastrous experiment. Everything has been so far sacrified to speed that her armor is inefficient, and she only carries two heavy guns. French naval critics are now wondering what is to be done with her. This question of speed also has given rise to disappointment. Vessels which, in trials, go up to 23 knots will do no more than an average of 18 to 19 knots in long runs. Not only do M. Lockroy and his followers find their predictions with respect to the cruisers entirely falsified, but they are even more severely hit by the results of the trials carried out with squadron torpedo boats and the submarine boats. The torpedo boat is at the mercy of the quick-firing gun, and in future it will be reserved solely for coast defence.

The Government has abandoned any idea of building squadron torpedo boats, but will replace them with destroyers. As for the submarines, the Minister would scarcely care to shock public opinion by condemning them, but he damned them with faint praise, so faint, indeed, that no one could have any illusions as to their value. It is obvious that the trials carried out with these vessels, which are to terrorize a hostile fleet, have not been a success. The submarine boat has got its famous "eye," but it appears that the moisture condensing upon it renders it blind, and in any event the speed under water is so slow that there is little chance of reaching a vessel which refuses to remain still to be hit. The Minister, however, looks hopefully to the carrying out of improvements, which will make the submarine boat a formidable weapon. With this end in view a sum is to be set apart for organizing competitions of plans similar to that which produced the Narval a few years ago. Meanwhile, the place which the submarine boat is to occupy in future strategy is to attack blockading ships in the daytime, while the torpedo will be employed for the same work at night.

EASTERN FREIGHTS.

Messrs. Funch, Edye & Co., in their weekly freight report of the Eastern Market state as follows:

The principal incident in the situation of our freight market is the terrible disaster which has befallen Galveston and renders the participation of that port in this season's export trade a matter of doubt. Until this question is solved and the loss to the Texas cotton crop definitely established, charterers at the Gulf ports are likely to act cautiously, although freights on parcel lots at New Orleans have advanced for prompt shipment. The Atlantic ports have still taken, and are offering on, boats for this month's loading; for October they appear to be well supplied and disinclined to consider latter tonnage at the moment. Grain freights are steady and the supply of tonnage not up to the demand for prompt boats; we quote for September 4s. 9d., October 4s. 7½d., latter months 4s. 6d. to Cork f. o. Larger vessels for picked ports may be quoted at 3s. 10d. @ 4s. We can still point to some trans-atlantic fixtures for coal but the settlement of the Welsh strike in conjunction with high freight rates ruling here, has temporarily taken the edge off this demand. There is still some enquiry for timber boats from the Gulf, which will lead to business, as soon as the present indifference of owners to this business, except at extremely high figures, will have toned down.

The scarcity of sailing vessels for transatlantic business continues to handicap the export trade in various commodities. Several fixtures have latterly taken place for case oil to the far East, mainly for remoter periods of loading, against which a slight premium is obtainable for more forward vessels.

THE Carnegie Steel Co. wants to furnish all the armor plate the government will need to cover its war ships, and if it can't furnish all it doesn't care to furnish any. The manufacturers of armor plate are doing their share to drive the government to putting in a plant of its own.

ARE THE REVISED STATUTES COMPLIED WITH?

Section 4481, R. S. says: "Every steam vessel navigating rivers only, except ferry boats, freight boats, canal boats and towing boats, of less than fifty tons, shall have at least one good substantial boat with lines attached, and properly supplied with oars, and kept in good condition at all times and ready for immediate use," etc.

Section 4488, R. S., says: "Every steamer navigating the ocean, or any lake, bay or sound of the United States, shall be provided with such numbers of life boats, floats, rafts, life preservers and drags, as will best secure the safety of all persons on board such vessels in case of disaster; and every such vessel navigating any of the northern and northwestern lakes, shall have the life boats required by law, provided with suitable boat disengaging apparatus, so arranged as to allow such boats to be safely launched while such vessels are under speed or otherwise," etc.

Now, we ask, in the name of justice and humanity, why are not these requirements complied with? Are the acts of Congress in this all important matter formulated merely to suit the whims of the steamboat inspection service and enforced at its pleasure, regardless of consequences? It seems so. The facts, in the estimation of many, are that the steamboat inspection service has become altogether too autocratic for the public safety, and if that service is to continue, there should be a higher board created, composed of practical men whose duty should be to formulate concise and sensible rules and regulations governing steam vessels, and after adoption, turn them over to the steamboat inspection service and see that that body enforces them to the letter. It does not require many words to show that the Revised Statutes relative to steam vessels are not strictly enforced. That portion of Section 4488 which says that "every steamer navigating the ocean, or any lake, bay or sound, shall have the life-boats required by law, provided with suitable boat disengaging apparatus, so arranged as to allow such to be safely launched while such vessels are under speed or otherwise," is commendable; but, alas! its non-fulfilment has been the means of launching into eternity many hundreds of dear lives. Without exaggeration, five-tenths of the lives that have been lost in steam vessel disasters were attributed to defective boat disengaging apparatus. Those who are familiar with the many heart-rending disasters will bear us out in this assertion. It has been the case with ill-fated foreign steamers as well, among them the Mohegan, LaBourgogne and many others, where hundreds of lives met a watery grave. We dare say should a serious accident befall the New York and Sandy Hook steamers, for instance, which go loaded with passengers, there would undoubtedly be many lives lost on account of the time occupied in lowering the boats by the antiquated apparatus. When a person falls or jumps overboard from a ferry boat, which is a common occurrence, it is seldom that a lifeboat is launched. Why? Because either the boat is in a dilapidated condition or the falls are out of order. So the only attempt at rescue is to hurl anything close at hand to the struggling and drowning person, whose death, perchance, is expedited by his being hit upon the head by these what-not life-preservers. We say separate the chaff from the wheat. There are some good rules governing steam vessels, and there are others obnoxious, but, by all means, let the former be enforced for the welfare of humanity. It is to the interest of steam vessel owners themselves, that their lifeboats should be serviceable and properly equipped, and the law complied with, for when an accident does occur and lives are lost, the vessel owners will be held amenable should it be proven that the laws were not complied with.—American Shipbuilder.

A SIX MASTER.

The six-masted schooner George W. Wells was launched from the yard of Mr. Harvey M. Bean, at Camden, Me., on the 14th ult. The record mast carrier is 302 ft. 11 inches long on the keel, 345 ft. long over all 48 ft. 6 in. beam, and 23 ft. deep. She has two full decks, with a poop 4 ft. deep extending from the taffrail to the forward hatch. Her frame is white oak throughout, and all her planking and ceiling hard pine. The garboards are 8 in. thick, other planking 6 in. her ceilings to the lower deck beam is 12 and 14 in. thick. A notable feature is the keelson, which is 13 ft. high aft, running up to a height of 17 ft. forward. The after house is 36 ft. square; amidships is the galley, and forward the engine-house and forecastle.

The six lower masts are of Oregon pine, each 119 feet long and 30 inches in diameter in the partners; the topmasts are each 58 feet long, the foretopmast being 20 inches in diameter in the cap. The jib-boom is 75 feet long and 20 inches in diameter in the cap. The driver-boom is 75 feet long and 18 inches in the slings. The other booms are 42 feet long and 14 inches in the slings. Her foretopmast, driver-boom and jib-boom are of Oregon pine, and all other spars of spruce. All the standing rigging is of wire, set up with turnbuckles. The masts are named as follows, beginning forward: Foremast, mainmast, mizzenmast, spankermast, jiggermast and drivermast. The vessel will carry 12,000 square yards of the heaviest duck, in the following pieces; Driver, jibber, spanker, mizzen, main and foresails; six gaff-topsails of the same respective designations, driver, jigger, spanker, mizzen and maintopmast staysails; five jibs. There is no reason why this big schooner should not be a great money maker, as she can cary more than 5,000 tons of coal on a draft of 24 feet with only 14 men, all told, for crew. A full-rigged ship of equal size would carry at least 31 men as crew.

VISIBLE SUPPLY OF GRAIN.

As compiled for THE MARINE RECORD, by George F. Stone, Secretary Chicago Board of Trade.

CITIES WHERE STORED.	WHEAT. Bushels.	CORN. Bushels.	OATS. Bushels.	RYE. Bushels.	BARLEY Bushels.
Buffalo	3,300,000	72,000	510,000	14,000	16,000
Chicago	12,902,000	1,402,000	3,153,000	411,000	17,000
Detroit	348,000	48,000	155,000	75,000	7,000
Duluth	6,657,000	207,000	50,000	66,000	156,000
Fort William, Ont.	960,000	.....	.....	.....	.....
Milwaukee	779,000	117,000	137,000	4,000	.....
Port Arthur, Ont.	68,000	.....	.....	.....	.....
Toledo	1,261,000	409,000	1,540,000	38,000	6,000
Toronto	27,000	.....	1,000	.....	.....
On Canals	116,000	181,000	37,000	17,000	20,000
On Lakes	2,047,000	1,242,000	700,000	17,000	139,000
On Miss. River	.....	20,000	30,000	.....	.....
Grand Total	53,927,000	5,602,000	10,347,000	794,000	653,000
Corresponding Date, 1899	39,288,000	8,107,000	6,528,000	627,000	619,000
Increase	2,192,000	245,000	1,522,000	.....	196,000
Decrease	.....	.....	.....	37,000	.....

While the stock of grain at lake ports only is here given. the total shows the figures for the entire country except the Pacific Slope.

NEW COAL DISCHARGING DEVICE.

The California Wire Works, of San Francisco, have designed a new device for unloading vessels, which is at present being used upon an old monitor that is doing duty as a coal barge in San Francisco Bay. It consists of a 2,240 lb. capacity grab bucket, operated over a movable trolley running on a track cable supported by structures erected at each end of the barge. The power used consists of a triple drum link motion double-cylinder 10 by 12 in. The trolley is moved fore and aft on the track rope by means of a grooved drum on the hoisting engine, the rope being endless. The closing rope and hoisting rope running from the grab bucket pass over sheaves in the lower part of the trolley, thence to the head sheaves in the supporting tower, and thence to their respective drums on the hoisting engine. One man operating this engine is able to discharge two loads a minute into the hopper in the center of the boat, over which the bucket passes. The coal is then conducted by a chute to a coal tub on either port or starboard side resting on a square platform, where it is automatically weighed and is then hoisted to the top of the side frame and automatically dumped into a chute which extends over the side of the vessel being loaded. It can deliver coal into vessels at varying heights, the maximum difference in deck levels being 30 feet. This coal tub is operated by an auxiliary engine amidship.

DEFINITE steps have been taken for the reconstruction of the whole of the Ottoman navy, except in the case of some ships considered to be valueless. Messrs. Ansaldo have in hand at Sampierdarena the old central battery ironclad Messoudieh, which is receiving an armament of two 9.2 in. guns, twelve 6-in. quick-firing, fourteen 3-in. quick-firing, ten 6-pounder quick-firing, and two 3-pounder quick-firing, as well as water-tube boilers. The Assar-i-Twfik has proceeded for reconstruction to the German yard, Kiel. A contract has been signed with Messrs. Ansaldo for the reconstruction of the Azizieh, Orkanieh and Osmanieh. The other ships to be rebuilt are the Avni-Allah, Feth-i-Boulend, Mahmoudieh and Mouin-i-Zaffer, which will shortly follow the others to the Italian yard. The ships will receive Krupp guns.

SHIPPING AND MARINE JUDICIAL DECISIONS.

(COLLABORATED SPECIALLY FOR THE MARINE RECORD.)

Collision—Steam Vessels Crossing.—A steam canal boat was primarily in fault for a collision in East river, close to the Brooklyn shore, caused by her attempting to cross the bow of a ferry boat, which was about to enter her slip, without giving any signal of such intention, where the ferry boat was also on her starboard, and therefore the privileged vessel. The Republic, 102 Fed. Rep. (U. S.) 997.

Steam Vessels Crossing—Duty of Privileged Vessel.—The one of two crossing steam vessels which has the right of way has the right to rely on the performance by the other of her duty to keep out of the way, so long as there is reasonable time and space for her to do so; but, when it becomes obvious that she cannot avoid collision by her own maneuvers, it is the duty of the privileged vessel to at once stop and reverse. The City of Augusta, The Chicago, Ocean S. S. Co. of Savannah, vs. Pennsylvania R. Co., 102 Fed. Rep. (U. S.) 991.

Admiralty—Action for Tort—Principles Governing.—A suit in admiralty against a ship owner to recover for the death of a stevedore, resulting from an injury received on board the ship, is governed by the same principles that would be applicable had the accident occured on land, and recovery been sought in a common-law action; and the defendant's liability must rest on some act of negligence, or the violation of some duty he owed to the deceased, which proximately caused the injury. Jefferies et al vs. De Hart, 102 Fed. Rep. (U. S.) 765.

Collision—Tow and Anchored Vessel—Negligence of Tug.—A tug having three tows, single file, on hawsers over 1,000 feet in length, failed to discover the lights of an anchored vessel until within 1,000 feet, although they could have been seen for half a mile or more; and then changed her course, but so late that she barely missed the anchored vessel, and the leading tow, under the influence of the tide, came in collision with it. Held, that the tug was in fault for the collision in not sooner seeing the lights and changing her course, The Indian Ridge, 102 Fed. Rep. (U. S.) 767.

Collision—Steamship and Ferryboat—Passing Unnecessarily Near New York Piers.—It is negligent navigation for a steamship, without necessity to run at a speed of 8 or 10 knots within 300 feet of the ends of the piers along the New York side of the Hudson, where numerous ferry boats are constantly entering and leaving their slips, which cannot be justified by any previous practice or custom, and which renders such vessel liable for any resulting colision with a ferry boat. The City of Augusta, The Chicago, Ocean S. S. Co., of Savannah, vs. Pennsylvania R. Co., 102 Fed Rep. (U. S.) 991.

Contributory Fault of Tow—Duty to keep Lookout.—Tows, like other vessels, must exercise ordinary skill and vigilance to avoid collision; and a tow being navigated in greatly-frequented waters, in a line 1,000 feet long, cannot safely depend entirely upon the tug, but it is her duty to keep a lookout, and to be prepared to cut her hawser if necessary to prevent a collision, and her failure to exercise such precaution, which would have enabled her to avoid a collision resulting from the negligent navigation of the tug, is a fault contributing to such collision. The Indian Ridge, 102 Fed. Rep. (U. S.) 767.

Negligence—Omission of Duty—Injury of Stevedore.—A ship contracted with a company, as master stevedores, for the loading of the vessel; agreeing to furnish "all necessary steam, slings, and rope for falls." The tackle used was selected by the stevedores themselves, with the consent of the officers of the ship; and suitable for the purpose. Held, that the shipowner owed no duty to a stevedore employed by the contractor, to supervise or control such selection, and that he was not liable for the death of the stevedore, caused by the giving way of such tackle. Jefferies et al vs. De Hart, 102 Fed. Rep. (U. S.) 765.

Insufficient Lookout.—The Chicago, a ferryboat running between New York and the New Jersey shore, and the City of Augusta, a steamship coming in from the sea, came in collision near the end of the New York piers, as the Chicago was about to enter her slip in the night, and the Chicago was sunk, being struck about one-third of her length from the stern. The vessels appeared to have sighted each other about the same time, which was not until the Chicago was about 200 feet, and the Augusta 400 or 500 feet, from the point of collision, although both carried the usual lights, and there was nothing to obstruct the view between them. The Chicago, being then too near the course of the Augusta to avoid collision by stopping, increased her speed and attempted to pass ahead, signaling her intention; at the same time the Augusta made a similar signal, neither signal being heard by the other vessel. Held, that both vessels were in fault for failing to sooner observe each other, and that the Augusta was further in fault in passing up at a speed of 8 or 10 knots within 200 or 300 feet of the ends of the piers, without necessity, and because she failed to stop and reverse until within 25 feet of the Chicago, although it was evident when she was 300 feet or more distant from the point of collision, that the Chicago was attempting to pass ahead and that collision could not otherwise be avoided. The City of Augusta, The Chicago, Ocean S. S. Co., of Savannah, vs. Pennsylvania R. Co., 102 Fed. Rep. 991.

MARINE RECORD

ESTABLISHED 1878.

Published Every Thursday by

THE MARINE RECORD PUBLISHING CO.,

Incorporated.

C. E. RUSKIN, - - - - - Manager.
CAPT. JOHN SWAINSON, - - - - Editor.

CLEVELAND, Western Reserve Building. CHICAGO, Royal Insurance Building.

SUBSCRIPTION.

One Copy, one year, postage paid, - - $2.00
One Copy, one year, to foreign countries, - - $3.00
Invariably in advance.

ADVERTISING.

Rates given on application.

All communications should be addressed to the Cleveland office,
THE MARINE RECORD PUBLISHING CO.,
Western Reserve Building, Cleveland, O.

Entered at Cleveland Postoffice as second-class mail matter.

No attention is paid to anonymous communications, but the wishes of contributors as to the use of their names will be scrupulously regarded.

CLEVELAND, O., SEPTEMBER 20, 1900.

FUELING SUPPLY STATIONS.

The following extract from the last report of the chief of the Bureau of Equipment, Navy Department, will be of interest during the present crisis in the Orient: "It may be stated without fear of contradiction that at present it would be impossible for a United States fleet to carry on active operations during a war anywhere about the coast of Europe, Africa, a large portion of Asia or South America, for want of coal."

The following is a list of places where coal is stored and the amount: About 10,000 tons is in stock at Guam at all times; Manilia, 25,000 tons; Guam, 10,000; Honolulu, 25,000; Pago-Pago, 10,000; San Francisco, 25,000, and Bremorton, Puget Sound, 25,000. This is not too large a tonnage, for in the Pacific are the warships of many nations besides American, and all these will need a supply of fuel. It can only come from this country, either from the Atlantic or Pacific Coast, and thus is another source of profit opened up to the producers of soft coal in this country. It was fortunate that the steamer Needles recently landed 6,000 tons of West Virginia coal at Nagasaki. The Ataka, with 6,000 is on the way to Taku, and the Cæsar has gone to the Pacific in the last week with 4,000 tons.

"At Vladavostock there is always an ample supply of Saghalin coal, worth $7.50 a ton. It is delivered by large iron lighters, by Coreans, who can handle 11 tons an hour. Che Foo is put down as one of the principal coaling stations, where can be had usually a fair supply of Australian, Japanese or Cardiff, worth from $8 to $16 a ton. It is delivered by lighters at 150 tons a day, and foreign men-of-war usually buy Australian or Cardiff. At Yokohama native coal, worth $6 a ton, can by lightered at the rate of 200 tons a day. The coal comes from Nagasaki. At Nagasaki there are a dozen grades of Japanese coal to be had, ranging from $3.25 to $6.50 according to quality.

"At Hong-Kong there is usually a supply of Welsh coal costing $18 a ton, Japanese at $8 and Australian at $10. It is all delivered to the vessels by lighters, and not over 20 tons an hour can be reckoned on.

"It is because American coal is of superior quality to that found in Japan, that supplies are sent from this country, notably from Hampton Roads. When the Oregon made her flying trip two years ago she found a chance for speeding when she struck a port where some American coal could be had.

"Out in the country of the Boxer, between Taku and Peking, fuel is exceedingly scarce, there being no wood to speak of, while a small amount of coal is imported on camels from the north. It is ground and mixed with clay to make it burn slowly. Therefore, it is that samples of Japanese coal have been received at Washington, D. C., for test, with a view to ascertaining its suitability for the purpose of the quartermaster's department in China. This coal might be used in stoves in the Sibley tents, for it must be remembered that the seat of war in China is on the same latitude as New York or Chicago and cold weather is had there as well as here. Therefore, provision must be made for the comfort of the soldiers if the campaign lasts into winter.

"Tien-Tsin is a coaling station in time of peace, and a large supply of native Chinese coal is brought from Kai-Ping, ninety-four miles distant, by railroad. About four thousand tons is usually on hand and its cost is from $3.10 to $4.70 a ton."

AVERAGE RATES OF FREIGHT ON THE LAKES, SEASON OF 1899, COMPARED WITH SEASON OF 1898.

	1899. Cts.	1898. Cts.
Iron ore, Escanaba to Ohio ports, gross ton...	94.8	50.8
Iron ore, head of Lake Superior to Ohio ports, gross ton.....	129.5	61.0
Iron ore, Marquette to Ohio ports, gross ton..	108.5	59.8
Wheat, Chicago to Buffalo, bushel.....	2.7	1.5
Wheat, Duluth to Buffalo, bushel.....	3.6	1.8
Soft coal, Ohio ports to Milwaukee, net ton...	68.9	27.8
Soft coal, Ohio ports to Duluth, net ton.....	45.4	23.4
Soft coal, Ohio ports to Portage, net ton.....	56.4	29.7
Soft coal, Ohio ports to Manitowoc, net ton...	67.0	28.5
Soft coal, Ohio ports to Sheboygan, net ton...	66.5	27.8
Soft coal, Ohio ports to Green Bay, net ton...	66.5	28.5
Soft coal, Ohio ports to Escanaba, net ton....	58.2	26.4
Hard coal, Buffalo to Milwaukee, net ton.....	72.7	28.0
Hard coal, Buffalo to Chicago, net ton.....	72.7	28.0
Hard coal, Buffalo to Duluth, net ton.....	49.5	23.0

AN OLD TRAVELER.

If fifty-two years of fresh water sailing can make an "old salt," Capt. F. Green of the schooner Thomas Quayle, which arrived here yesterday morning with a cargo of coal, is that in full sense of the designation, says the Marquette Mining Journal.

He is one the pioneers of the Lake Superior vesselmen, having sailed its waters for something like forty-six years. He was a sailor on the schooner Willington, which took the second load of iron ore shipped from Marquette out of this harbor. From the date of his first trip here—which, according to his recollection, was about 1854—he has sailed in and out of Marquette continuously and has watched its growth from a straggling collection of shacks to the city it has come to be.

Capt. George Judson commanded the Willington on her first trip in Lake Superior waters. The craft was owned by Alva Bradley of Cleveland, who then controlled a fleet of four vessels, including besides the Willington, the Allington, Queen City and Challenge. Mr. Bradley was at the time a vesselman of wealth and influence and it was one of his vessels that Capt. F. Green first shipped in 1848. Before leaving the craft he sailed eight round trips between Buffalo and Cleveland.

According to Capt. Green's recollection of the circumstances, Capt. Judson brought the Willington into Lake Superior without the full consent of its owner, Mr. Bradley. Whatever the true status of the affair was it appears that Capt. Judson's judgment was sound as his voyage was a signal success.

The Willington was locked past the Soo without much difficulty and completed her voyage to this harbor without unusual incident. Arriving here, Capt. Judson, as well as all hands, was greatly disappointed to find that a rival had captured the honor of being the first boat to visit Marquette, for the schooner E. C. Roberts, Capt. Hank Andrews in charge, was tied to the dock located just south of where No. 4 ore dock now stands.

Apparently there was nothing to do but to wait for the Roberts to clear. As she was a fair sized vessel this promised to be a tedious job, as the ore was then wheeled on board the vessels in barrows, all the work being done by manual labor and with the crudest of appliances.

The delay was lessened by a happy idea which enabled Capt. Judson to utiilze several feet of the dock which was not pre-empted by the Roberts. The stern of the Willington was swung around to this point and a trough of boards was constructed to carry the ore to the vessel's hold. Capt. Green considers that the system of chutes now in universal use was then and there originated, as the ore was handled direct from the tram cars.

Capt. Judson made about as good progress loading his vessel as did Capt. Andrews, of the Roberts, so that when the latter craft cleared there remained but little work to be done to give the Willington her full cargo and she cleared very soon after the vessel which had earned the distinction of being the first to clear from Marquette harbor with a cargo of iron ore.

The trip down was completed without incident as far as the "Soo", but there the crew had an experience with the pesky mosquitoes which Capt. Green can vividly recall even at this late date. They were present at the locks in swarms. It was impossible to live, with any degree of comfort, and sleep was entirely out of reason. The only feasible procedure was to try and forget the mosquitoes by employing the time in hard work. In pursuance of this plan Capt. Judson turned his whole crew out in the night to load cedar ties.

The remainder of the trip passed pleasantly. When the ore was unloaded and the business of the voyage was concluded there was a neat profit for the owner, Mr. Bradley, who was so pleased with the fortunate outcome of the venture that he at once gave much attention to the Superior carrying trade, with the result that, at the time of his death, some fifteen or twenty years ago, he was one of the most influential vesselmen on the lakes and controlled some twenty or more steamers and schooners.

Alva Bradley's interests were immediately taken in hand by his son who is now a factor in the shipping business, controling some twenty ore carriers, of which the Thomas Quayle, sailed by Capt. Green, is one. Capt. Green never left the Bradleys' employ, and for a period of half a century has worked for them in every capacity, from sailor to the position he now holds.

He relates many stories of the early history of Marquette. He recalls the days when the Indians on Light-house Point were subjects of great interest to all sailors who visited this port, and the frequent visits made to their encampment. Capt. Judson was an early real estate investor here, and Capt. Green says he would have bought land had he had any available funds. Capt. Judson bought a lot on which one of the handsome Ridge street residences now stands, for $150 and afterward sold it at a slightly larger figure.

Capt. Green has been acquainted with some of Marquette's older residents for over forty years, and usually visits them when he makes this port. He has a clear recollection of Samuel Peck, who, on the occasion of his first visit, was in charge of the dock at which the Willington was loaded with the 400 tons of ore that made up her cargo.

INSPECTION SERVICE.

The annual report of James A. Dumont, the Supervising Inspector of the Steamboat Inspection Service, shows that during the year ending June 30, 1900, the total number of vessels inspected and certified was 9,253, with a total tonnage of 4,507,648, as against 8,707 vessels in 1899, with a total tonnage of 3,968,371, showing an increase in tonnage of 802,041 tons.

The number of certificates issued to foreign passenger steamers included in the above was 345, with a gross tonnage of 1,233,846. Motor vessels inspected, 80; gross tonnage, 4,516. Sail vessels inspected, 520; tonnage, 534,761. Domestic steam vessels inspected, 8,308; with a total tonnage, 2,734,525. The total number of officers in the service holding five-year licenses is estimated to be about 43,000, of which number 6,445 received their licenses during the present fiscal year.

The total number of applicants for masters, mates and pilots' licenses was 2,866, of which number 69 were rejected for color blindness.

The total number of boiler plates examined by assistant inspectors at the mills under the Act of Congress, approved January 22, 1894, was 5,424, of which number 483 were rejected for various defects.

The total number of accidents during the fiscal year was 33, being 15 less than the previous fiscal year.

Total number of lives lost, 206; being 198 less than in the previous fiscal year.

It is an anomaly that only 9 per cent. of the total foreign commerce of the United States is carried in American bottoms. The reason is too well known to need recapitulation at this late date. But the condition of the country's shipbuilding industry is improving, and when the subsidy law is passed, as it will no doubt be in the next session of Congress, we may look for a revival on a large scale. It is a well known fact that builders are only waiting for the enactment of this measure to show what they can do.

LAKE SUPERIOR HISTORY.

No one in all the Lake Superior country is better able to speak with authority of the old days here than the Hon. Peter White. His reminiscences have made him famous not only through this region, but also through the state and even farther afield. Ten years ago he wrote an article for the Mining Journal on the history or early navigation on this lake. Since then lake traffic has grown wonderfully, and a comparison of its present day proportions with its very small beginnings are even more interesting than when Mr. White wrote his article. For this reason the Mining Journal has prepared the article for publication again. It is condensed and somewhat changed in form, but the main facts of the original story are all retained. The article follows:

For six years after the loss of this fleet, the canoes and batteaux had the lake to themselves. The next vessel was the John Jacob Astor, built above the Soo in 1835 by George W. Jones. She was 113 tons burden. She was wrecked at Copper Harbor, Sept. 20, 1844. Capt. C. C. Stannard, her first master, discovered Stannard rock while sailing her up the lake on her maiden trip.

The schooner William Brewster, which was named after the agent of the American Fur Company at Detroit, was built above the rapids in 1838, but after a few years service on Lake Superior, she was taken to the lower lakes.

The fifty-ton Algonquin was the first boat to be hauled over the portage and made her first trip on the lake at the opening of navigation in the season of 1840. Mr. White relates that in 1849 the Algonquin took on a load of settlers at Sault Ste. Marie to bring them to Marquette. When the vessel had passed Laughing Whitefish Point, though it was a bright, clear day in August, Captain McKay said he had been into Marquette bay many a time, and that it was no place to be when an east wind was blowing. "There is sunken rocks," said he, "that bay is full on 'em." With that explanation, he ran past the harbor and landed his thirty-five passengers on the beach at Little Presque Isle, ten miles north. They were dumped out indiscriminately on the sand with their baggage, but no food. They were obliged to camp for the night, and next day walked to Marquette, reaching here in an almost famished condition.

In those early days Marquette, in common with all other northern lake cities, was absolutely cut off from civilization and supplies during the winter months, and the failure of a boat to arrive with a cargo which was destined for the place was apt to mean several months of hardship.

A story of this kind is told in connection with the schooner Sis-co-wit. In November, 1849, she took on a load of oats at the "Soo" for Marquette. For some reason instead of coming in here her captain ran her straight through for L'Anse or Baraga, and laid her up for the winter. But the hardy settlers of Marquette did not intend to suffer for want of the cargo, and two of them, Capt. Sam Moody and James Broadbent, went from here to L'Anse on snow shoes, took forcible possession of the vessel, refitted her and sailed for home on Christmas eve and arrived here Christmas day. The thermometer registered fifteen degrees below zero. It was an heroic effort. After the precious cargo was discharged Capt. Moody attempted to get the schooner into the mouth of Chocolay river, but either from lack of water in the channel or too much ice he failed to make the river. The schooner went on the beach a few hundred feet southwest, where her hull now lies buried under the sand.

In 1845 the monster schooner Swallow, eighty tons, was brought over the "Soo" portage. She finally became the property of Capt. James Bendry, of Baraga. Bendry considered the Swallow altogether too large for this lake, and after the canal was opened sent her below. The Merchant was brought over the portage the same year. Two years later she went down off Grand Island with crew and passengers all on board. This is the first serious wreck in the history of Lake Superior navigation.

Up to this time none of the vessels—unless the fur companies' boats may be considered to have paid for themselves indirectly—either built here or brought over, had made any money.

The schooner Fur Trader, ninety tons, was the first to break the spell. She was brought over the portage in 1845. Capt. Calvin Ripley sailed her. About this time the great copper excitement sprang up and the Fur Trader coined money from the start. She was a favorite passenger craft even later on, when there were a few steam vessels on the lakes. "Old Rip," as the captain was called, was a great joker. He was for many years after a pilot on different steamers which came to Lake Superior.

1845 is a notable year in Lake Superior's history, for it marks the advent of the first steamer on its waters. This was the propeller Independence, 280 tons burden. Capt. Averill was her master and part owner. Her career was a checkered one. She was full rigged like a vessel and had a powerful steam engine, but she was always in trouble. Neither wind nor steam nor both could make her go right. In 1849 on her first trip up the lake that season she went ashore high and dry in Eagle harbor. A year or two later she was got off, and slightly after her release when she was about a mile out of the "Soo" bound up the lake her boiler burst and she was blown into fragments. Jonas W. Watson, the clerk, was among the saved. He says he went up in the air about 150 feet and as he saw a bundle of hay passing seized it and came down with it. He was not even injured. It is said that so methodical was Watson that when about to go up he seized the ship's books and papers and saved them. In river improvements at the "Soo" last summer parts of the old Independence, among them the propeller, was recovered.

In the summer of 1845 the schooner Napoleon, 120 tons, was built at the "Soo". The winter of 1848-9 she was overhauled and changed into a propeller. She did a good business until the completion of the canal, when she went to the lower lakes, where she remained in commission until a few years ago. On her first trip she came into Marquette, then called Carp river, and anchored a little more than 4 miles below the present location of the city. The passengers begged Capt. Clark to weigh anchor and run a little farther up into the bay, but he declared that if other people had no regard for the safety of the vessel he had, and said he had explored every square yard of that bay a thousand times and found it full of sunken rocks. No sane man he said would ask him to so endanger the safety of his boat. Vessels of thirty times the tonnage of the Napoleon make the harbor nowdays.

In the autumn of 1848 the side wheel steamer Julian Palmer, belonging to Capt. W. F. P. Taylor came to the "Soo" and the following winter was rolled over the portage and launched in Lake Superior early in the summer of 1847. At the end of her first season her machinery was taken out of her and the old hull was taken to Waiskia Bay and used as a wood dock. Her last trip she was 14 days out of sight of land and those on board of her had a most perilous time.

The next steamer was the fast sailing staunch upper cabin propeller Manhattan, of 380 or 400 tons burden, commanded by Capt. Caldwell. She was brought over the portage and put on Lake Superior in the interests of Spaulding & Bacon, later on Spaulding and Childs. The Manhattan's career on this lake began in 1850 and lasted until she went ashore and was wrecked while trying to enter the harbor of Grand Marais in the summer of 1858.

In June, 1851, the propeller Monticello was brought over the portage by Col. Shelden McKnight. Col. McKnight had owned or controlled the Independence and Napoleon and brought on the Monticello as a rival to the Manhattan. Capt. John Wilson sailed the new boat. A fierce war on passengers and freight commenced. In the month of August of that year a collision occurred between the Monticello and the Manhattan. It could have been easily avoided but each boat was bent on destroying the other. The Manhattan was cut down and sunk near Parisian Island. No lives were lost. Her enterprising owners released and reconstructed her in six weeks time.

The Manhattan was a popular boat, and on her reappearance at Marquette a deputation of young ladies dressed in white marched down to the Cleveland dock, where the boat was tied up, and presented Capt. Caldwell with a beautiful flag and bouquets of flowers. The girls sang a song named "The Manhattan," and composed for the occasion, then a pompous old doctor, by the name of Livermore, mounted an old cast iron cylinder and read some high-sounding resolutions, which concluded with the remarkable prediction that Marquette would grow to be the greatest city in the world.

One of the twelve resolutions, however, has had its predictions more than verified. This particular section read- "Resolved, That the time is not far distant when the commercial business growing out of these rich and inexhaustible mountains of iron will alone require more shipping than at this time floats upon this lake."

The Monticello was thought at the time to be uninjured but she was doubtless cracked from stem to stern by the collision, for, the twenty-fifth of the same month, after coming out of Ontonagon she was found to be making water fast. Her fires were put out by the water rising to her furnaces. She went on the rocky coast about twenty miles east of Eagle river and rapidly went to pieces. Several of her passengers were drowned.

The next steamer was the splendid two-piped, upper cabin, side-wheel steamer Baltimore, put on by the McKnight line. She was put across the portage in June and July, 1853. In the season of 1855 she passed through the canal, just then completed, and was lost on Lake Michigan. The propeller Peninsula, put on by the McKnight in the summer of 1853, went ashore in Eagle River. She did not carry passengers to any extent, but was a very large freight carrier. The steamer Sam Ward, brought over by Capt. E. B. Ward in 1853, was a very popular boat and paid for herself two or three times over in the two years prior to the opening of the canal.

When the canal was finished in June, 1855, there came the large steamers Illinois, Capt. Wilson; North Star, Capt. J. B. Sweet; Northerner, Capt. Ed. Turner; Lady Elgin, Capt. Tompkins; the old Superior, Capt. Jones; also the propellers Gen. Taylor, Mineral Rock, City of Superior, Lac la Belle. The last three were successively commanded by Capt. John Spaulding, Capt. Ben Wilkins, who afterwards sailed the Winslow for many years, first brought out the propeller Ontonagon.

The Illinois was changed into a barge in 1868. Later the Mineral Rock took the same course. The North Star was burned at her dock in Cleveland in 1862. The Notherner was lost on Lake Huron in 1858 by a collision.

The loss of the Lady Elgin was attended with the greatest loss of life in the history of the Great Lakes. She was lost on Lake Michigan by a collision with the schooner Colonel Cook, then named the Augusta, and among the more than 300 lost was the gallant Captain Jack Wilson, who had sailed so many steamers on the Lake Superior route. He was in command and through his heroic exertion many lives were saved. He could easily have saved himself but would not at the cost of losing others who had trusted themselves to his care and skill.

The Superior was wrecked on the Pictured Rocks on the night of October 26, 1856. She was a very old craft, fairly rotten at the time of her loss and should not have been permitted to carry passengers. Twelve of the passengers and four of the crew were saved. It is a fearful story. Those who were saved caught on a shelf of rocks under a high cliff, where they clung with great difficulty for five days without food. A snow storm was raging with great fury all the time and the waves continually washed over them. They saw Captain Jones swim to the foot of the rock below them but were powerless to aid him and he was drowned in their sight. Eight of the strongest of the crew clung to the paddle wheel, the last remnant of the ship remaining above water, and dropped off one by one as their strength gave out and they were unable to hold on longer. The last one had the watches and other valuables of the party on his person. All this happened in plain sight and within 200 feet of the party on the shelf of rock. When the news reached Marquette a hurried public meeting was held, money and clothing were given and a relief party was despatched to the scene of the wreck to aid the survivors.

THERE were 435 competitors at the Paris Exposition for the prize of $20,000 offered by the heirs of Anthony Pollock for the best device for saving life at sea. Out of these only one was accounted worthy a tenth part of the total sum, the award of of $2,000 being made to a Mr. Rofer for a life saving raft bridge. The device has been fitted on the Polyphemus, of the British navy, and the Liverpool Journal of Commerce says of it: "It is constructed of steel and therefore a danger. It seems impossible that the talent of the British Navy should have adopted an appliance which of its very nature seems a most dangerous fitting, and one liable to bring about at the earliest possible moment a most undesirable state of things, which would give an opportunity for testing the efficiency of the life-raft. A bridge capable of accommodating 600 persons is no mean structure, and unless everything in the launching and working of the same worked mechanically, it will prove anything but a joke."

ACCORDING to press dispatches, the views of Andrew Carnegie on the issues of the present national campaign will be fully detailed in an article he is preparing for the October number of the North American Review. According to his present plans he intends to return to this country about the middle of October.

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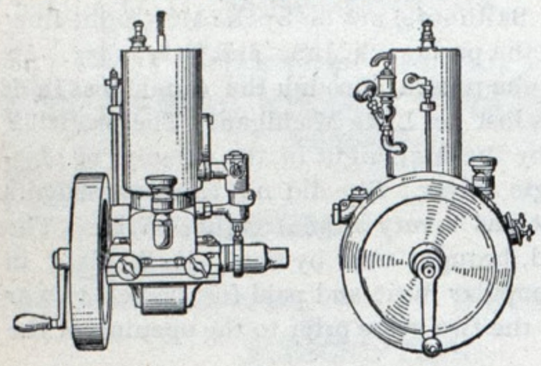

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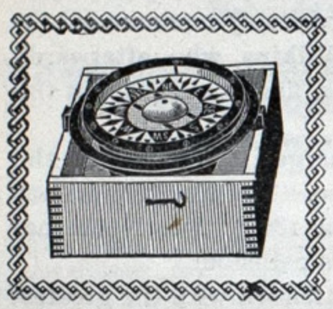

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DULUTH WHEAT TRANSPORTATION.

The shortage of the wheat crop, according to a Duluth elevator man, may not be as serious for the head of the lakes roads and elevator companies as might be assumed. He says that the elevator companies and the roads tributary to Duluth are not going to lie down and let anything in the shape of grain get away that may be won by fair competition.

"The Great Northern and Omaha roads will, I expect, wheel more corn into Duluth this year than ever before," said he. "You may look out for the Milwaukee line, with its traffic arrangement into Duluth, to bring some corn this way too. Chicago is not going to get the corn in Duluth territory this year without a struggle, and they will have to hustle to get it in strictly competitive territory, the time has gone by, and the elevator roads here and the Duluth roads have too much at stake to continue to allow Chicago to run off with business which might be diverted through this point as its most natural and desirable channel. For this reason I think the quantity of coarse grain that will be received here will be surprisingly large this year. We know that we can depend upon the Great Northern and I guess the Omaha is beginning to feel pretty friendly too. This matter of a Banning's line will be a real transportation reality in the near future, and we may find it necessary to shove it a point or two to the southward."

THE SUB-MARINE TELEGRAPH.

The submarine telegraph systems of the world number over 1,500, with an aggregate length of wire of more than 170,000 miles, or about equal to six times the circumference of the earth. The total cost of maintaining this great enterprise is estimated at $250,000,000 annually, while the number of messages transmitted beneath the sea is about 6,000,000 per year. In the last fifty years and since the practicability of submarine telegraphy has been demonstrated, electric wires have been laid under every ocean except the Pacific, and there are two lines projected under the latter. More than a score of lines have been laid across the Atlantic, and thirteen of them are now in successful operation between the United States and Europe. There are three lines between South America and African and South European coast lines. The Mediteranean Sea is crossed and recrossed in its entire length and breadth by numerous cable lines. Lines connect the Far East with Europe and America by way of Indian Ocean, the Red Sea and the Mediterranean Sea. The Gulf of Mexico and the Caribbean Sea is traversed in all directions by lines which bring its islands and colonies into speaking relations with each other and with South America, Central America, the United States, Europe, Africa, and in fact the whole world. Along the eastern coast of Asia cables are laid from port to port and from island to island. South America is skirted with cables along its entire coast except in the extreme southern portion where the communication is by land. There is a cable line from Australia to New Zealand, and another from the New Caledonia Islands to Australia. The developments in the laying, constructing and operating of submarine cables and their availability for public use have kept pace with their general extension throughout the world.

From a mere gutta percha wire the submarine conductor of electricity has developed into a great cable having a central copper core surrounded and covered by many layers of non-conducting material and protected by steel wire wound spirally about it and by water-proof and insect-proof wrappings. The effect of the submarine cables in the transmission of thought and words from one end of the world to the other is shown in the rapid development of international commerce since the system was inaugurated. The first successful cable line between the United States and Europe was put into operation in 1866. With a direct cable communication across the Pacific Ocean and direct water communication through the Nicaragua Canal and an increase in the number and capacity of the American steamships it is not improper nor visionary to suppose that a material addition may be obtained by the United States in the commerce and carrying trade of the world.

WAVE-POWER SCHEMES ARE DISAPPOINTING.

Wave motors and tide power schemes have been almost endless in number, says a writer in Cassier's Magazine. The former have, in a few instances, been used for light pumping work at seaside places, but such pumping outfits have been very far from demonstrating that the wave motor could ever be seriously considered as a prime mover where large powers were demanded; in fact, the wave motor is little better than a toy. As to power from the tides, there is little to be said, except that such money has been wasted in vain endeavors to turn it to practical account.

The tide-power scheme probably always will be alluring and also disappointing. The disappointment comes from the fact that very few people seem to take the trouble to figure out how much water and how considerable a fall are required to give any useful amount of power. A horse-power for a day of 10 hours, for example, would require something like 120 tons of water falling from a height of 100 feet, so that a 500 horse-power factory, say, would need 60,000 tons of water at a 100 foot head. On the basis of 36 cubic feet of water to the ton, there would thus be over 2,000,000 cubic feet of water, and this would make a fair-sized pond, say about 1,000 feet long, 200 feet wide and 10 feet deep. There is in these few figures something that may help to open the eyes of the tide-power plan inventor and of those who are in the habit of putting money into such things.

CHICAGO.

Within the past two weeks lake steamers have been libeled for alleged damage to Chicago river bridges and their owners have been put to much inconvenience and annoyance in their business by the apparent littleness of the Chicago city authorities.

Were the frequent collisions which occur in the Chicago river the result of carelessness or incompetence on the part of vesselmasters there might be some excuse for the petty avarice exibited by the much vaunted municipality; but as the real cause of the trouble lies in the reckless granting of franchises by that same municipality, the excuse is entirely wanting.

With the building of Chicago's drainage canal a menace to the marine industry of the lakes was created. Under the conditions of the franchise, the quantity of water allowed to pass from the lake into the canal is limited, but, unfortunately, the limit is placed at a figure which, if allowed to continue, will serve to drive shipping from the Chicago river entirely.

At present the full limit is not reached, and yet vessel owners of undisputed varacity declare that with two tugs towing navigation is almost impossible without damage to the inferior and decaying structures termed bridges, which span the river. Even if no damage occurs, there is much delay and a greatly increased towing bill for the vessel owners as a result of the swift current caused by the drainage canal.

When, added to these conditions, vessels are seized by the authorities for a puny damage bill of $100 and detained for hours because the apparent spleen of the authorities prompts them to serve the papers after the close of business hours, as was the case with the Syracuse of the Western Transit line, only recently, patience ceases to be a virtue and even the long-suffering soul of the average vessel owner waxes wroth.

To cause a corporation like the New York Central railroad, which handles many thousands of dollars' worth of freight through its port annually, a full day's delay under the circumstances attaching to the libel of the Syracuse, is a piece of petty meanness and littleness unworthy a great city government.

Poor old Chicago! She is striking the hand which feeds her when she declares war on the merchant marine of the lakes, and, though she may not realize the fact, is driving trade in other directions which by wise diplomacy she might retain.

One hundred dollars' damage to a bridge, caused by carelessness on the part of city officials, is not sufficient excuse to warrant the tying up of a great transportation company's business for a day, especially when, as in the case of the Syracuse, nearly a full day was allowed to elapse before any action was taken to detain her—a delay which made quick release impossible. Alas! poor, avaricious, misguided Chicago! How hath thy glory departed!—Buffalo Courier.

THE OLDEST SCHOONER AFLOAT.

The oldest schooner afloat in American waters and one of the oldest in the world in point of actual service is the Polly of Calais, Me., Capt. McFarland, owner and master, built in Amesbury, Mass., in 1805, and recently started on her 96th year of voyaging along the Maine coast. There is probably no schooner sailing in any waters with as interesting a history as the 65 ton Polly, which was a privateer in the war of 1812, was captured by and escaped from the British, sailed to the Golden Gate in '49 and around the world several times, and who in her time was regarded as one of the fastest schooners on the seas. Even now, after nearly a century's buffeting on the seas of many lands, the stanch little coaster can show her heels to many of the more modern craft it meets from Calais to Boston, where it is well known by old mariners. In its sturdy old age it sails as a worthy testimonial of the art of the ancient shipbuilders of Massachusetts. "It's as able a craft today," recently remarked Capt. McFarland admiringly, as he was putting the finishing paint touches on it, "as it was the day of its launching, nearly 100 years ago."

Over fourscore years ago the Polly's decks bristled with guns as it scoured the seas preying upon British commerce under command of Capt. Jeduthun Upton of Salem, Massachusetts, until it was captured by his majesty's ship Pheobe of 44 guns. Although captain and crew were taken to England and held as prisoners of war for seven months, the brave Polly escaped that ignominy, its English prize crew joining the fortunes of Uncle Sam. Half a century ago it was sailing around the Horn with an adventurous party of Forty-niners from Maine. Since that time the Polly has sailed nearly all the navigable waters of the globe and has always made its home port right side up.

Capt. Jeduthun Upton, who owned and commanded the Polly in 1812, when he fitted it out as a privateer, was one of the most noted seafaring men of Salem and one of the most patriotic citizens of that town. He was born in Salem on September 6, 1785, and died in Havana on July 26, 1821. He married on May 12, 1807, Sally Smith, whose father Jerrie Smith was one of Washington's bodyguard and a noted patriot. Capt. Upton's sister Sally married Dr. Hemenway of Boston and was the mother of August Hemenway, who at his death was one of Boston's wealthiest citizens.

Capt. Upton and a crew of 20 sailed on the Polly on its first privateering cruise from Salem, Mass., on Dec. 12, 1812; was captured by the British frigate Phœbe on Dec. 23, after she had taken several prizes; and Capt. Upton did not set his foot on American soil again until the July following. Of his sufferings and trials, his indignation at the harsh treatment by the British prisonship officials, the impressment of American sailors into British trading vessels, the collusion of the American Transport Commissioner with the British, and other interesting side lights on the war of 1812, from a privateersman's point of view, Capt. Upton kept record in the Polly's log. The log, though yellow with age, is clearly decipherable and is in possession of Mrs. S. H. Lincoln of Machias, Me., a granddaughter of Capt. Upton.—Boston Transcript.

A LAKE MICHIGAN SEICHE.

Prof. Cox, of the Weather Bureau, stationed at Chicago, is preparing a special report on the recent seiche, or oscillation, of surface levels on Lake Michigan. While a number of alleged tidal waves have swept the lakes, only once before in the history of Chicago has the Illinois shore been visited by a seiche. That was on April 7, 1893, and ever since the phenomenon has been a subject of discussion among the scientists. The wave occurred between 1:30 and 1:45 a. m., and its height was from four to six feet. The damage done was principally to vessels anchored in the river. Several were torn from their moorings and carried toward the lake, causing numerous collisions with other vessels. Some were carried out into the lake. The same wave swept over the beach at St. Joseph, Mich., 700 feet back from the high water mark, the vertical rise at that point being given at four feet.

Reports show that the recent seiche was quite general all over Lake Michigan. Capt. McIntosh, of the steamer Darius Cole, said that at South Haven the water rose and fell about four feet. After the water had first receded it came rushing back ten minutes later deluging the shore. It is now agreed, from reports, that two waves swept over the lake, the last one being more severe than the first, and the water being carried farther out into the lake. Residents of Windsor Park claim that the water receded beyond Nichols pier, 250 feet from shore, and that the sand was plainly visible where the water is generally fifteen feet deep. While the seiche was in progress the water changed temperature three times, varying from ten to fifteen degrees. Experts say that this was due to a change of the surface covering, the water at the bottom of the lake probably changing places with that at the top, owing to the central upheaval.

MASTER OR PILOT.

October 1, 1900.

The United States Civil Service Commission calls attention to its announcement of August 20, 1900, relative to the establishment of an eligible register for the position of master in the Quartermaster's Department at Large, applications for which will be accepted up to the hour of closing business on October 1, 1900.

Age limit 20 years or over.

From the eligibles resulting from this examination it is expected that certification will be made to the position of master on the quartermaster's steamer General Ayres, at Boston, Mass., at a salary of $110 per month, as well as to the position of master or pilot on the quartermaster's steamer General French, at Fort Morgan, Alabama, at a salary of $100 per month, and for similar vacancies as they shall occur.

This examination is open to all citizens of the United States who comply with the requirements and desire to enter the service. All such persons are invited to apply, and applicants will be examined, graded and certified with entire impartiality and wholly without regard to any consideration save their ability as shown by the grade attained in the examination. Preference in appointment may be given to eligibles who are residents of the vicinity in which the vacancy exists.

Persons who desire to compete should at once apply to the United States Civil Service Commission, Washington, D. C., for application forms 304 and 394, which should be properly executed and filed with the commission prior to the hour of closing business on October 1.

September 12, 1900.

NOTICE TO MARINERS.

TREASURY DEPARTMENT,
OFFICE OF THE LIGHT-HOUSE BOARD,
Washington, D. C. September 13, 1900.

LAKE ST. CLAIR.

ST. CLAIR FLATS CANAL LOWER ENTRANCE (WEST SIDE) EXPERIMENTAL GAS AND BELL BUOY, NO. 21.—Notice is hereby given that on September 7, 1900, a gas-lighted buoy with an automatic fog bell attachment was substituted for gas-lighted buoy No. 21.

The new buoy is moored in the same position and is painted and lettered like the former buoy; but it shows a fixed white light, and sounds continuously one stroke every 20 seconds.

The masters of vessels are requested to inform the Light-House Inspector, at Detroit, should they pass within reasonable hearing distance of this buoy and not hear the bell ring.

HURON LIGHT STATION.—Notice is hereby given that, on or before October 5, 1900, the skeleton tower at this station will be inclosed, covered with metal shingles, and the entire tower below the lantern balcony painted white.

The tower is located on the outer end of the pier, west side of the entrance to Huron Harbor, southerly side of Lake Erie.

By order of the Light-House Board.

FRANCIS J. HIGGINSON,
Rear Admiral, U. S. Navy, Chairman.

ASSISTANT ENGINEER, QUARTERMASTER'S DEPARTMENT AT LARGE.

October 13, 1900.

The United States Civil Service Commission announces that it is desired to establish an eligible register for the position of assistant engineer in the Quartermaster's Department at Large.

No scholastic test will be given, but applicants will be graded upon the elements of age, experience, intelligence, character as a workman and physical qualifications as shown by the information furnished in connection with their formal applications. It will not be necessary for applicants to appear at any place for examination.

Age limit 20 years or over.

From the eligibles resulting from this examination it is expected that certification will be made to the position of assistant engineer in the Quartermaster's Department at Large, steamer Gen. Ayres, Boston, Mass., and for similar vacancies as they shall occur.

This examination is open to all citizens of the United States who comply with the requirements and desire to enter the service. All such persons are invited to apply, and applicants will be examined, graded and certified with entire impartiality and wholly without regard to any consideration save their ability as shown by the grade given them. Preference in appointment may be given to eligibles who are residents of Boston or vicinity.

Persons who desire to compete should at once apply to the secretary of the local Board of Examiners at Boston, Mass., or to the U. S. Civil Service Commission, Washington, D. C., for application forms 304 and 394 which should be properly executed and filed with the Commission prior to the hour of closing business on October 13.

September 12, 1900.

AN interesting experiment, it is stated, is to be made by a New York company under the auspices of the United States government, in blowing up some old wrecks along the coast by the use of liquid air. The process, and exactly how the explosions are to be accomplished, have not yet been made public.

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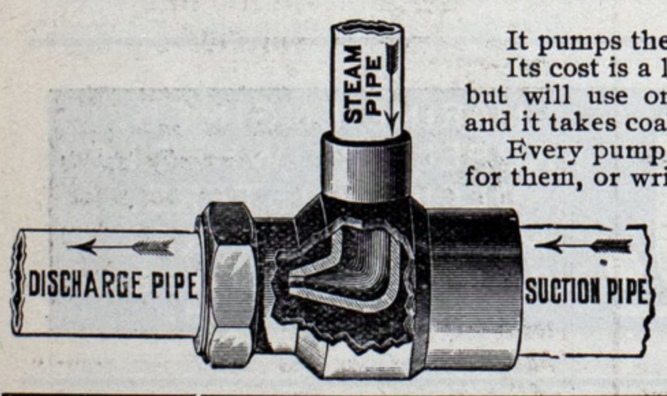

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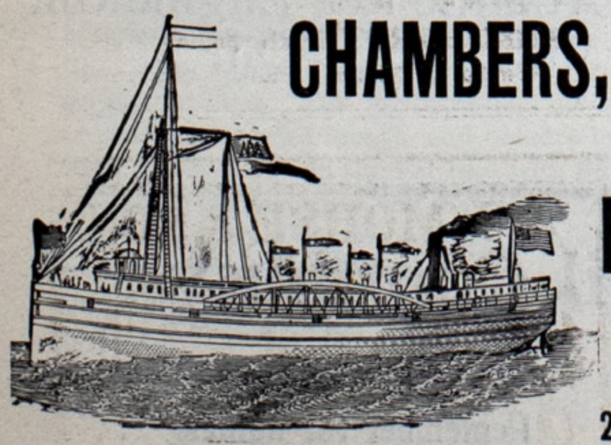

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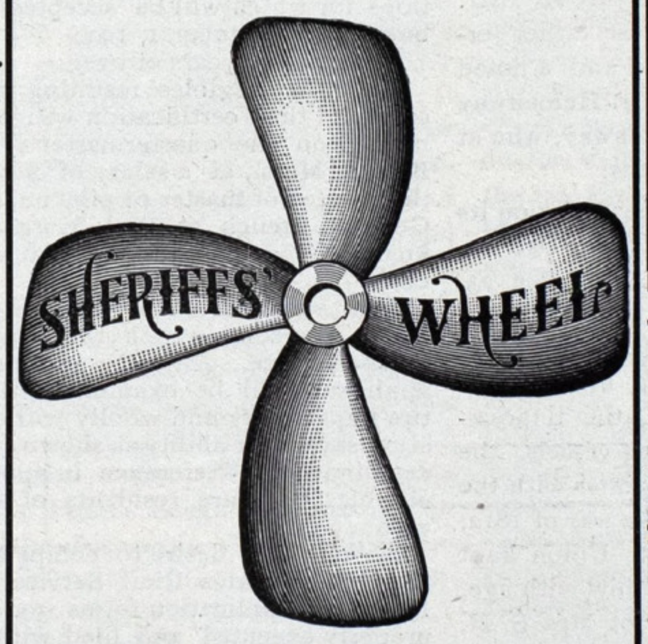

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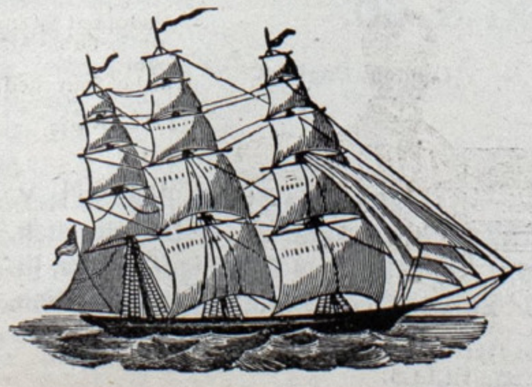

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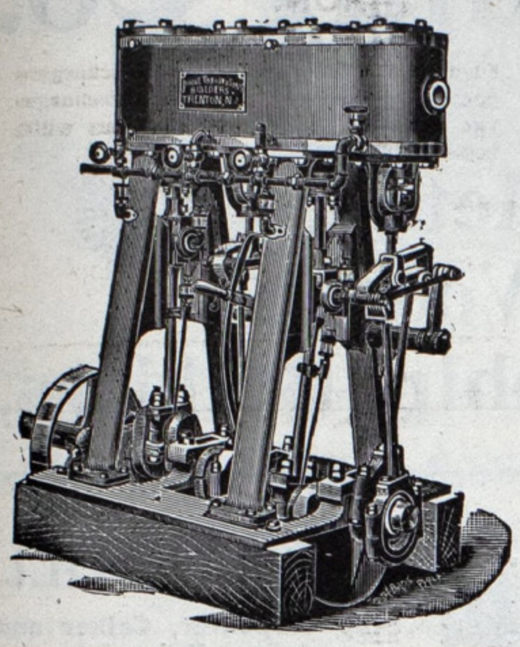

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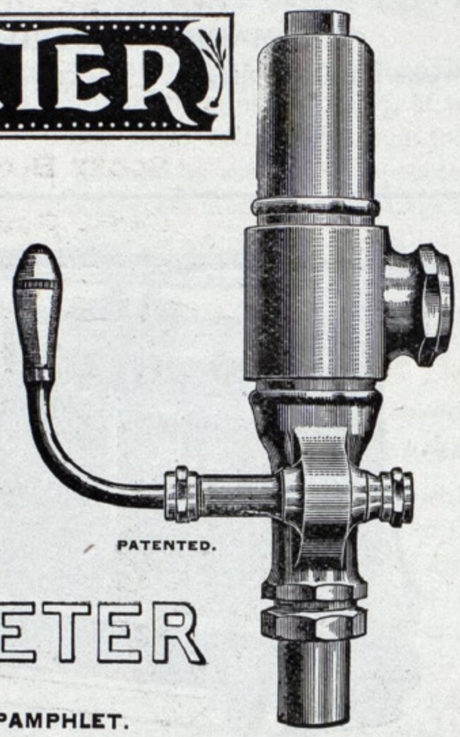

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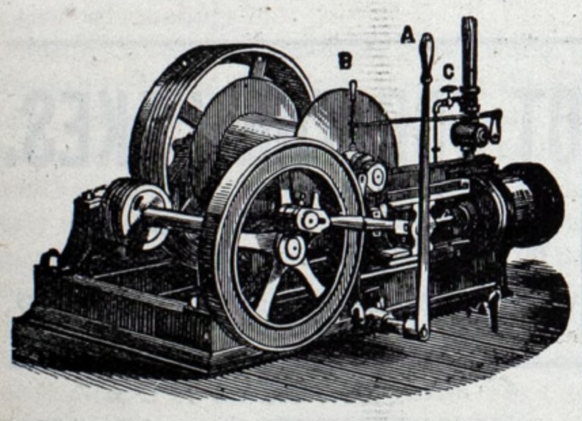

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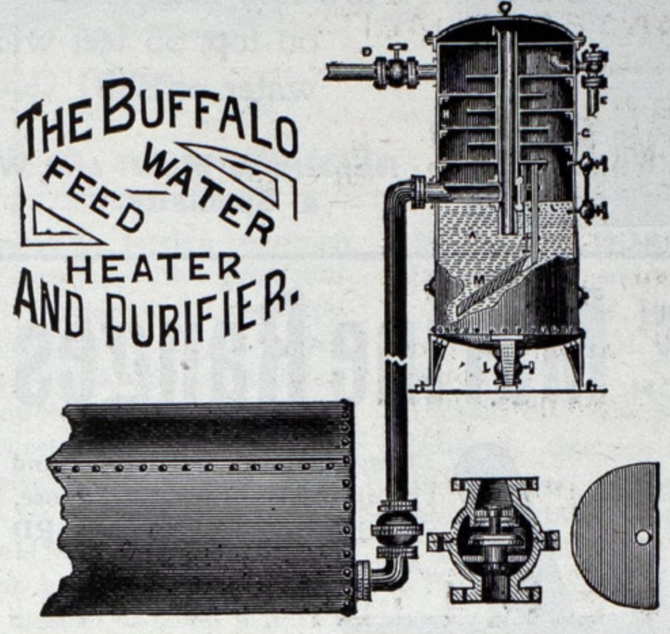

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U. S. ENGINEER OFFICE, 185 Euclid Ave., Cleveland, O., September 8, 1900. Sealed proposals for constructing breakwater and piers at Black River Harbor, (Lorain), Ohio, will be received here until 2 p. m., standard time, Monday, October 8, 1900, and then publicly opened. Information on application. JARED A. SMITH., Col. Engrs. 37-38

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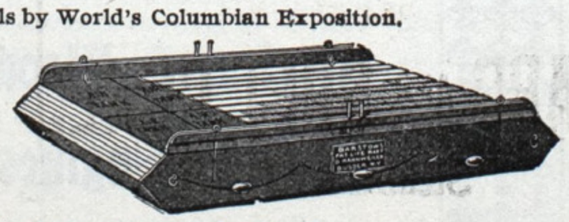

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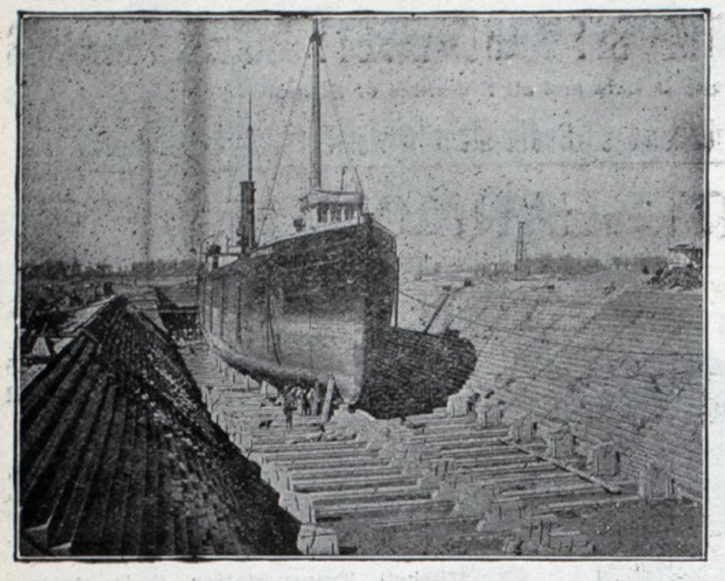

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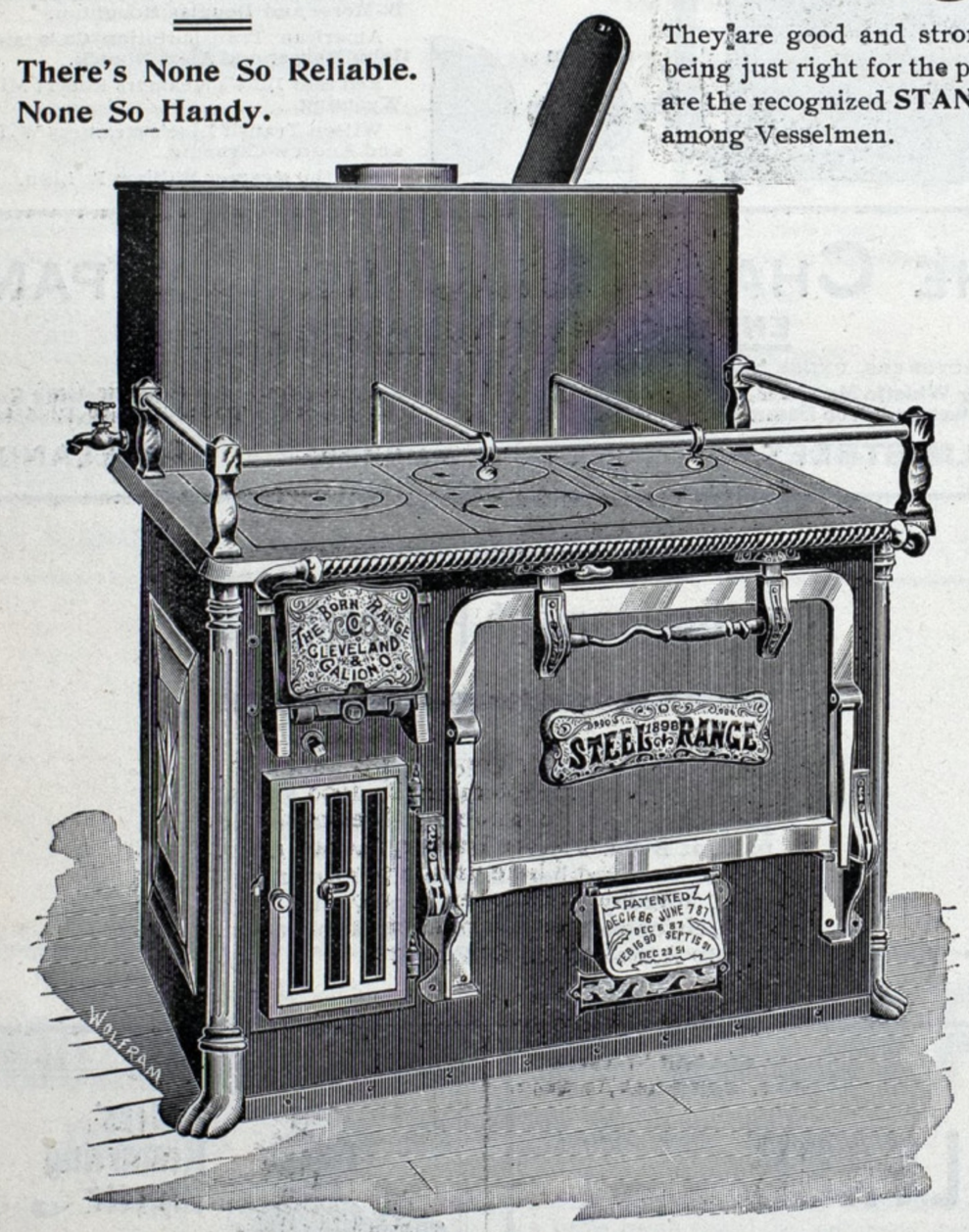

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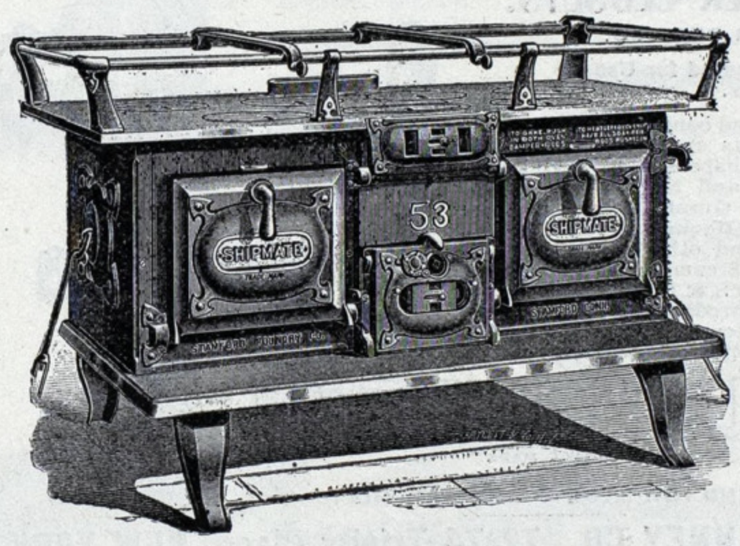

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